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VICTORIA
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FORTY-EIGHTH REPORT

OF THE

COMMISSION OF PUBLIC HEALTH

FOR THE

YEAR ENDED 30TH JUNE, 1970



PRESENTED TO BOTH HOUSES OF PARLIAMENT PURSUANT TO SECTION 23 (3)
OF THE HEALTH ACT 1958.

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COMMISSION OF PUBLIC HEALTH

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(Deceased 22nd June, 1970)

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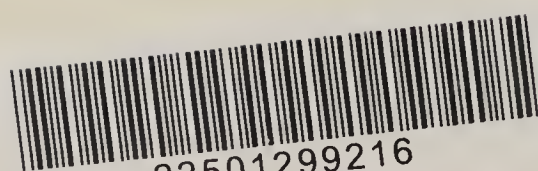
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FORTY-EIGHTH REPORT OF THE COMMISSION OF PUBLIC HEALTH 1969-70

To the Honorable John Frederick Rossiter, M.L.A.

SIR,

We have the honour to submit, in accordance with Section 23(3) of the *Health Act* 1958, our report for the year ended 30th June, 1970.

The detailed activities of the Commission in a very wide field of public health in Victoria are presented in the appropriate sections of the report.

In reviewing the major events in the field of public health which have occurred in the State over the past year, the Commission considers the situation can generally be regarded as satisfactory, particularly in relation to the preventive services provided by the Department in co-operation with local municipalities.

The major item of importance in this field during the year was the introduction of measles immunization as envisaged in the last report of the Commission. The campaign commenced in March, 1970, and found ready acceptance by the public. To date, over 90,000 doses of vaccine have been distributed.

The Commission again draws attention to the excellent results generally in the control of infectious diseases. The use of Sabin vaccine as a preventive against poliomyelitis has been fully justified and only one case of poliomyelitis was notified in Victoria in the year under review.

Pollution of the environment has been much emphasised in the past year. The Commission has always regarded this matter seriously but is of the opinion that the subject has been overemphasized by the news media and little account is taken of what has been carried out in Victoria over many years to overcome this problem. The Commission's work is exemplified by the report of the Clean Air Section which gives some account of the measures taken by the Department to combat air pollution.

The Government has expressed its intention of introducing legislation for the control of pollution and can be assured that the Commission will co-operate in any matters for which it is responsible.

The matter of fluoridation of public water supplies has again been the subject of some controversy and the Commission can only reiterate its previous recommendation that fluoridation is a safe and effective measure to assist in the prevention of dental caries in the community.

The Commission noted with satisfaction the action of the Government in introducing legislation to amend the Health Act to give power to make regulations to provide for a warning label on cigarette packages sold in Victoria and commends the Department on the production of an excellent documentary film on the hazards of smoking for showing to teenage audiences. The Commission will continue to give support and assistance in intensifying health education measures on smoking hazards being taken by the Anti-Cancer Council in conjunction with the Education Department.

EPIDEMIOLOGICAL AND INFECTIOUS DISEASES REPORT.

MEASLES VACCINE.

The live measles vaccine programme commenced in March 1970 as envisaged in the forty-seventh Report of the Commission.

Schwarz type vaccine supplied by the Commonwealth Health authorities is being offered for the immunization of children between the ages of one and ten years who have not previously suffered from measles. This immunizing agent replaces the Beckenham 31 vaccine which was withdrawn from the market by the manufacturers just prior to the scheduled commencement of the campaign in 1969. The former vaccine has certain advantages over the Beckenham vaccine including the lower incidence of minor side effects such as elevation of temperature and rash.

The campaign was launched by the Minister of Health who stated that six deaths and many permanent injuries occurred in Victoria following the 1967 measles epidemic. A similar epidemic was experienced in 1969 and following the normal 2-year cycle another is expected in 1971.

By the end of June over 77,710 doses of the vaccine had been distributed to the participating municipalities throughout the State. The response to date by parents has been encouraging, particularly in view of two major obstacles militating against acceptance of measles vaccination. Firstly, the adverse publicity which followed the association of a small number of serious illnesses with the Beckenham vaccine in Britain; secondly, the apathy of many people who wrongly consider measles a relatively mild disease without possible serious complications.

The success of the programme to date has been due, to a major extent, to the co-operation of the municipalities and the publicity organized by the Department. Press releases were prepared to give a wide coverage of television, radio and newspapers (including foreign language) throughout the State.

TUBERCULOSIS.

Introduction and General Observations.

New notifications of tuberculosis continue to decline and this year there are less persons with reactivated tuberculosis. The small number with chronically active disease remain at the same level.

Year.						Active Cases				
						New.	Rate per 100,000.	Reactivated.	Chronic.	Total.
1964	..	..	..	..	..	820	25·93	72	86	978
1965	..	..	..	..	..	790	24·50	84	66	940
1966	..	..	..	..	..	649	19·98	78	59	786
1967	..	..	..	..	..	599	18·13	80	49	728
1968	..	..	..	..	..	535	15·94	57	38	630
1969	..	..	..	..	..	497	14·53	44	38	579

Mortality rates have been so low for many years that they do not give any accurate gauge of current progress.

Tuberculin testing amongst children probably reflects the current amount of spread of infection in the community, but variables can interfere to make comparison from year to year unreliable. In 1969, the natural positive reactors to tuberculin amongst school children aged 14 years was 2·6 per cent. and for Victorian National Servicemen aged 20 years the figure was 5·5 per cent.

Notifications.

During 1969 there were 497 new cases of tuberculosis notified, a rate of 14·53 per 100,000. Of these, 414 (83 per cent.) were pulmonary cases and 83 (17 per cent.) were extra-pulmonary. 71 per cent. of all cases were bacteriologically proven, 73·2 per cent. of the pulmonary and 57·7 per cent. of the extra-pulmonary. There were 312 males (63 per cent.) and 185 females (37 per cent.).

Bovine type myco-bacteria were isolated from 2 male patients with pulmonary lesions. One had been a slaughterman but no relevant history was available for the other. Anonymous myco-bacteria were isolated from 7 patients.

Age Groups.

The age distribution of new notifications has followed the usual pattern seen in recent years, except for a small decrease in those aged between 15 years and 40 years. The figure for children under 15 years remains unaltered at 10·1 per cent.

- 29·0 per cent. of all new cases were 60 years and over.
- 73·2 per cent. of all new cases were 35 years and over.
- 55·3 per cent. of all new pulmonary cases were males 35 years and over.
- 54·3 per cent. of all new pulmonary cases were 50 years and over.

Migrants.

34·2 per cent. of the year's notifications were from persons born outside Australia, i.e. 170 cases. The 1966 census figure is 21·14 per cent. of the Victorian population. Fifty-five persons were British and 115 non-British—22 persons (13 per cent.) were reported within one year of arrival (17 non-British). Of the 83 extra-pulmonary cases reported 39 were born outside Australia and only 4 were British. This pattern has been observed for a number of years.

Extra-pulmonary Tuberculosis.

There were 83 cases reported. Tuberculosis of the renal and genital organs continues to be the most common—45 cases. There were 8 cases of bone and joint tuberculosis, 6 cases of meningitis (1 child, 5 adults). Tuberculosis of lymph glands is still fairly common and usually occurs in children; 18 cases were reported, and some of these were caused by anonymous type myco-bacteria.

Source of Notification.

Mass X-ray surveys continue to be the most rewarding source of notification for pulmonary tuberculosis. They were responsible for 173 cases (42 per cent. of the pulmonary forms). Hospitals were credited with 124 cases (25 per cent. of all forms), private medical practitioners were responsible for 102 (21 per cent.) and State Clinics reported 59 cases (12 per cent.)—mainly the result of examination of contacts of new cases. Notifications from death certificates were higher this year—9 cases, however 5 of these were non-pulmonary forms.

The routine survey of inmates on entry to Pentridge Gaol has revealed 2 cases during the year. In the two-and-a-half years of operation, 6,538 persons were examined; 13 active cases located—a rate of one active case for every 503 X-rays. In addition, 2 other cases with suspected active lesions who were discharged without further investigation were later re-discovered and found to have active disease—a total of 15 active cases. This emphasises the value of an X-ray unit in this location.

Five new cases were found at routine examination on admission to mental hospitals; 2 cases resulted directly from school tuberculin testing.

It will be seen that approximately half of those notified with active tuberculosis during the year developed symptoms and sought medical aid, either at a public hospital or their doctor. This situation has continued for some years despite efficient and virtually complete X-ray surveys of the adult community. It is most important, therefore, that medical personnel in clinical practice should remain aware of the possibility of tuberculosis amongst their patients and should community X-ray surveys become less frequent, this responsibility will increase.

Reactivation.

There were 44 persons previously notified whose tuberculosis again became active after at least three years stability. 38 (83 per cent.) were bacteriologically proven at relapse. Pulmonary relapses occurred in 40 cases and extra-pulmonary in 4. Almost half the cases (20) had been stable for 15 years or longer; 13 had previously received chemotherapy in courses regarded as “satisfactory” on present standards.

In addition, there were 23 cases whose lesions again became active after periods of stability from 1 to 3 years; records suggested that “adequate” chemotherapy had usually been given.

In a proportion of those persons recorded as having taken “adequate” chemotherapy, it must be suspected that the co-operation has in fact not been satisfactory and the drugs were not taken regularly or in full doses. This calls for closer direct supervision of patients receiving chemotherapy and where co-operation is found to be suspect the taking of chemotherapy should be supervised.

As in previous years, it is noticed that tuberculosis can again become active even after many years of stability, emphasizing that there can be no safe end point for medical supervision of those known to have had the disease.

Case Register.

On 31st December, 1969, the Case Register for active cases had listed 2,603 cases, of whom 2,272 had pulmonary and 331 extra-pulmonary disease. 829 names were removed from the Register during the year.

The Case Register continues to be an important adjunct to tuberculosis control, especially aiding supervision of persons changing their places of living, and those who carry a higher risk of relapse, or risk to others if they relapse (e.g., kindergarten workers, school teachers, &c.). Special lists of names of such people are retained to enable closer supervision.

Deaths.

The figure supplied by the Commonwealth Bureau of Statistics for deaths is not yet available. Records of those having died during the year included only 26 persons who had evidence of active tuberculosis at death or within the previous six months. Death certificates listing tuberculosis in the diagnosis now tend to reflect the age groups at death rather than deaths from tuberculosis. The average age at death was 66·5 years.

Mass X-ray Surveys.

By the end of 1969, more than two-thirds of the population had been visited during the second compulsory X-ray survey of adults over 21 years. This survey was commenced in 1967 and has proceeded very efficiently. For the year there was a further increase in the number X-rayed—672,925 miniature films were taken, of which 597,266 were taken on survey, 73,639 at fixed centres and 2,020 at Pentridge. Despite the increased work, the regular flow of examinees on survey has generally proceeded smoothly and technical faults have been very low—a rate of 1·4 per 1,000 films taken. The recall rate of 70 mm. films for large films was 11·8 per 1,000.

During the year 25 electorates were surveyed, 185 active cases found, a rate of 0·28 per 1,000. There were 158 cases of cancer of the lung—a rate of 0·23 per 1,000, 61 cases of sarcoid—a rate of 0·09 per 1,000. In addition, there were 1,317 persons considered to have inactive tuberculosis, a rate of 1·96 per 1,000 ; 2,971 persons with other abnormalities were noted.

Since 1964 there has been a decrease each year in the rate of active tuberculosis cases discovered by Mass X-ray Surveys—from 0·66 per 1,000 in 1964 to 0·28 per 1,000 in 1969. However, Mass X-ray Surveys still locate appreciably more cases of active pulmonary tuberculosis than any of the other sources in Victoria. The proportion of cases of cancer of the lung has remained relatively unchanged through this period—0·24 per 1,000 in 1964; 0·23 in 1969.

Roll checking of attendance at the compulsory chest X-ray surveys continued, and has revealed that attendance on survey has decreased from 95 per cent. of the potential in each electorate to 89 per cent. in the last year. This not only results in a great amount of extra work in following up non-attenders, most of whom are eventually traced and fulfil their obligation, but emphasizes the importance and necessity of carrying out thorough roll checking, if a complete survey is to be achieved.

Tuberculin Testing: B.C.G. Vaccination.

Tuberculin testing has continued in schools with pupils above Grade 6, i.e. 12 years of age and above. B.C.G. vaccination is offered to the negative reactors. The present programme permits visiting all areas of the State every three years of which consent rates for pupils are generally over 90 per cent. In all 89,541 pupils were examined over the year, yielding a positive reactor rate of 2·6 per cent. 28,979 pupils had been vaccinated in earlier years and of these 80·8 per cent. gave positive tuberculin reactions.

Rates for school children:

Age 12 years	14,999 tested	..	1·9 per cent. natural reactors:	1968 2·0 per cent.
Age 13 years	16,716 tested	..	2·1 per cent. natural reactors:	1968 2·1 per cent.
Age 14 years	16,199 tested	..	2·6 per cent. natural reactors:	1968 2·5 per cent.

Post B.C.G. re-examinations.

All ages and groups—

(3/12 to 12 years after vaccination) .. 5,187 tested—84 per cent. +ve : 1968 70 per cent.

Contacts and others—

(3/12 after vaccination) 2,188 tested—90 per cent. +ve: 1968 72 per cent.

Surveys have also been made of various other groups, including National Service trainees, in all 98,538 persons were examined and 59,707 vaccinations performed.

Bacteriology.

Reliable bacteriological support is essential in tuberculosis detection and control. Appreciation is again expressed for the co-operation and help given by the staff of the Tuberculosis Laboratory at Fairfield Hospital.

During the year the Laboratory's work resulted in:—

- 16,812 direct smear examinations,
- 17,788 cultural examinations,
- 701 animal inoculations,
- 3,238 sensitivity tests.

Isolations of tubercle bacilli were detected from 392 patients, of whom 289 were new cases, 39 were “carry over” cases from the end of 1968, 35 were from reactivated cases, and 29 were from persons with chronically active tuberculosis.

Primary drug resistance was located from 13 patients, including 7 from migrants. In the past 7 years there have been 58 cases of primary resistance detected, of which 30 of these persons were born outside Australia.

Treatment.

Initial treatment using triple therapy with streptomycin, isoniazid and P.A.S. is generally used. The “second line” drugs are reserved for cases where intolerance or toxic effects occur, or in reactivated cases. This generally enables almost 100 per cent. bacteriological “conversion” in a case of tuberculosis presenting for initial treatment. However, an analysis of 400 cases discharged during 1967 to 1969 has shown that 24 per cent. suffered significant reactions to one or more anti-tuberculous drugs, as a consequence regimes of drug desensitization or the addition of other combinations of anti-tuberculous drugs became necessary. This requires close medical supervision of patients, both as in-patients and out-patients, with frequent assistance of pathology laboratory investigations. It is intended that the new pathology laboratory established at Heatherton Sanatorium will give great assistance in this supervision.

The two newer drugs, Ethambutol and Rifampicin, give indications of being very valuable adjuncts in the treatment of tuberculosis. They are well accepted and tolerated by patients, accordingly it is hoped with more experience that these drugs will be used more freely. However, a major problem in therapy remains in persuading patients to accept the long term administration of drugs.

Hospitals, Sanatoria, Chalets.

The total demand for beds for institutional care has decreased but fluctuates from time to time in different areas, especially associated with the visits of Mass X-ray Surveys.

At the end of 1969 the Chalet attached to the Wimmera Base Hospital, Horsham, was released to the Hospital for other purposes, beds will now be provided for tuberculosis patients only as demand occurs.

Gresswell Sanatorium was closed for the treatment of tuberculosis patients on 23rd May 1970 and is now being used by the Mental Health Authority in the rehabilitation of patients suffering from alcoholism.

On the 6th May, 1970, the Honorable Vance Dickie, M.L.C., Minister of Health, opened a new hospital block, with 38 beds and a pathology laboratory which had been completed at Heatherton Sanatorium. This enabled the transfer of Gresswell patients to Heatherton.

Children with tuberculosis continue to be treated at Heatherton Sanatorium where the Education Department provides full school facilities with a teacher.

Bureau and Clinics.

Despite a steady decline in the numbers of persons reported with active tuberculosis, the work at the clinics continues to be important. In addition to the care of new patients and persons referred from medical practitioners work involves supervision of persons with evidence of past tuberculous infection who carry a higher risk of relapse, along with the investigation of contacts of those found to have active tuberculosis. Close supervision is required for those with evidence of recent active disease who require continuation of their drug treatment for about two years. The increasing population and associated arrival of migrants provide further potential patients.

Activities at the clinics have continued at the same level, over 76,000 attendances being recorded. At Northern Suburbs Chest Clinic the work continues to increase and during 1969 there were almost 20,000 attendances; 29 cases of active tuberculosis were reported from this clinic.

In the country, attendances at clinics have not varied significantly. These continue to fulfil an important role in tuberculosis control, at the same time giving the majority of country patients access to tuberculosis clinics with a minimum of inconvenience.

Prahran Chest Clinic.

The Chest Clinic at Prahran moved into a new building on 18th September, 1969. The building was officially opened by the Honorable Vance Dickie, M.L.C., Minister of Health, on 17th December, 1969.

It is almost 40 years since a chest clinic for tuberculosis was established by the City of Prahran in two weatherboard cottages adjacent to the site of the new building. The function of the clinic was to investigate suspected cases and contacts of tuberculosis.

Over the years there were a number of modifications and the clinic was re-sited on several occasions. Following the Commonwealth-State Tuberculosis Arrangement in 1948 the State Health Department accepted responsibility for the tuberculosis work in the area using accommodation provided by the Prahran Council. The increased demands on the health services provided by the City of Prahran and also for tuberculosis work involved discussions between the Council and the Health Department and resulted in the establishment of a new chest clinic building.

Appreciation is recorded of the interest and work of the Council and officers of the Council who established what must have been one of the first out-patient clinics for tuberculosis in Victoria.

Costs.

							\$
Purchase of site from Prahran City Council	..	..	..	..	..	..	29,500
Building and Furniture	..	..	..	..	..	..	220,000
Equipment	..	..	..	..	..	..	40,000
							<hr/> 289,500 <hr/>

The equipment includes a 100 mm. X-ray unit coupled to an automatic film processor.

The area being serviced by the clinic at present includes the municipalities of Prahran, Malvern, St. Kilda, Richmond, Brighton and Sandringham, and will be extended to other municipalities.

Alcoholism and Tuberculosis.

An assessment has been made of the problem of alcoholism and tuberculosis, analysing 2,800 case histories of notified tuberculosis patients whose names were on the Active Case Register of the Tuberculosis Branch, Victoria, for the years 1961–1966 inclusive. For the project, “heavy drinkers” were defined as those admitting to taking “10 or more beers most days”, or the equivalent;

all others were regarded for convenience as “non-drinkers”. The total of “heavy drinkers” was 578 of the 2,800 cases, 20·6 per cent. In the 30–69 year age group they represented 28·6 per cent. and in the 40–49 year age group, 39·7 per cent.

They are mostly men, half of them are unmarried, divorced or separated, suggesting a great degree of social disruption and emphasizing that socio-economic factors remain important in the management of pulmonary tuberculosis. They are predominantly English speaking and more than half of them are ex-servicemen.

Numerous factors were considered; it was demonstrated that “heavy drinkers” are more prone to tuberculosis and that there is an undue prevalence of “heavy drinkers” in the group of tuberculosis patients reviewed.

“Heavy drinkers” form a distinctive group, characterized by a far greater incidence of disadvantageous factors, both medically and sociologically and in relation to management, than those who drink less. For example they have more advanced disease, take longer to treat, have more difficulty with drug taking, are more unco-operative with their chemotherapy, and in the end produce more potentially chronic positive cases, with infectivity increased by an inevitable smoker’s cough.

TUBERCULOSIS CASE REGISTER: 2,800 CASES: “HEAVY DRINKERS”— 578 CASES = 20·6 PER CENT.

Moderately and Advanced Disease	..	..	HEAVY DRINKERS—30 per cent.
Cavitation	..	..	HEAVY DRINKERS—39 per cent.
Gross Cavitation	..	..	HEAVY DRINKERS—42 per cent.
Delayed Conversion	..	..	HEAVY DRINKERS—51 per cent.
Unco-operative with chemotherapy	..	..	HEAVY DRINKERS—55 per cent.
Chemotherapy Intolerance (Intolerance to Isoniazid = 54 per cent.)	..	..	HEAVY DRINKERS—40 per cent.
Irregular Sanatorium Discharge	..	..	HEAVY DRINKERS—50 per cent.

Tuberculosis Allowances.

At 31st December, 1969, there were 160 persons being paid the Tuberculosis Allowance compared with 189 at the end of 1968. Of these persons, 114 were men and 46 were women; 87 were receiving in-patient care, 73 were out-patients. There were 132 (82·5 per cent.) in receipt of the Allowance for less than one year, 16 between one and two years, and 12 over two years. The average duration of payment of the Allowance was 6·7 months for those receiving it for less than a year. Of the 289 cancelled during the year 153 returned to work, 92 transferred to other Social Service Benefit, 11 were for disciplinary reasons and the others for various reasons.

Conferences.

The Fourth National Tuberculosis Conference was held at Hobart in March, 1970; Victoria received invitations from the Commonwealth to send the Director and five (5) medical officers. Two members presented papers. These conferences are proving of considerable value in creating interest in current tuberculosis knowledge and also result in greater co-ordination of work between the States through the personal contacts that are made.

Housing.

The continued co-operation of the Housing Commission in assisting families referred to them is gratefully acknowledged. During the year, 15 families were involved of which 12 were accommodated.

Legal Powers.

Under the provisions of the Health Act, 2 persons attended for examination and 2 other persons were admitted for institutional care during the year. One person was fined \$40.00 with \$22.42 costs in a Court of Law for failure to attend for compulsory chest X-ray in a proclaimed area without giving adequate reason. Fortunately, the numbers of people who require action to be taken under the Health Act are very small.

SUMMARY OF TUBERCULOSIS STATISTICS—VICTORIA 1969.
Population 3,420,000. (Estimate December 31st 1969).

Year.	Notification of New Cases.		Deaths.		Tubercu- losis Allowances Paid at 31st De- cember.	Mass X-ray Surveys.		School Tuberculin Survey. (11 years and over).		No. of Beds Available at Sanatoria and Chalets.	Average Stay in Sanatoria (days).
	Number.	Rate per 100,000.	Number.	Rate per 100,000.		Number X-rayed.	Possible Active Tubercu- losis.	No. Mantoux Tested (1 : 1,000 O.T.).	% +ve Reactors at Age 14.		
1948	677	32·37	641	30·65	1,368 (State Scheme) 2,039	150,000	..	..	..	735	252
1951	1,030	44·20	407	17·88		277,938	767	20,524	18·0	1,134	326
1954	1,046	46·59	245	9·99	1,453	463,210	621	17,869	10·3	1,172	285
1956	885	33·98	194	7·37	1,121	388,765	413	20,946	6·8	1,050	164
1957	813	30·40	145	5·37	793	437,796	194	29,161	8·1	782	144
1958	776	28·32	145	5·23	582	413,932	184	44,269	7·4	744	140
1959	862	30·32	153	5·38	496	416,721	213	39,297	5·9	744	135
1960	863	29·50	138	4·70	444	380,598	194	40,400	6·9	744	141
1961	698	23·32	127	4·35	406	405,913	190	47,145	4·7	744	155
1962	781	25·65	101	3·35	411	456,559	185	47,338	3·9	744	160
1963	888	28·80	109	3·55	390	478,861	255	48,680	3·3	744	165
1964	820	25·93	121	3·84	290	428,306	286	75,897	4·1	729	138
1965	790	24·50	106	3·29	292	596,994	288	78,945	4·1	715	139
1966	649	19·98	128	3·94	223	662,576	252	90,643	4·0	705	132
1967	599	18·13	93	2·82	235	641,974	235	72,636	5·5	705	135
1968	535	15·94	68	2·03	189	663,707	211	90,116	2·5	686	137
1969	497	14·53	..	..	160	672,925	185	89,541	2·6	672	124

DIPHThERIA.

Fourteen cases of diphtheria occurred in the State; all but one were reported from the Metropolitan area. Patients resided in the municipalities of Essendon, Melbourne, Coburg, Fitzroy, Collingwood and Kowree.

The main focus of infection was centred in a school in Ascot Vale where 3 cases (including one death) and 14 symptomless carriers where detected. Due to the prompt action of the municipal officers in initiating a crash immunization programme the outbreak was contained.

This episode revealed a relatively low level of immunized children in many migrant families notwithstanding the regular municipal campaigns conducted in the schools. As a consequence a special effort has been made to publicize the need for and the value of immunization through the medium of foreign language newspapers.

TYPHOID FEVER.

Five persons contracted typhoid fever and a further 5 were found to be chronic carriers of the organism. These carriers were usually detected in the course of routine examination of the contacts of clinical cases.

One of the 5 patients was a male aged 23 years; the remainder were females aged 2, 16, 18 and 52 years respectively. Three patients were migrants from southern Europe who acquired their infections in Australia; one person was infected abroad and subsequently developed symptoms after arrival by air in Victoria.

TYPHOID OUTBREAK ON AN OVERSEAS LINER.

A large overseas passenger liner en route from Australia disembarked a number of passengers in Britain, several of whom subsequently developed typhoid fever.

On the return voyage typhoid occurred on board resulting in three persons being admitted to hospital in Fremantle (W.A.).

When the vessel arrived in Melbourne during November a “Medi-alert” was invoked on 625 passengers who left the ship for destinations in Victoria, South Australia and Tasmania. Fortunately no secondary cases were detected during the 21 day surveillance period.

The tracing of these persons was a valuable exercise in co-operation between the Commonwealth, State and the municipalities. Particular mention should be made of the assistance rendered to officers of the Department by Medical Officers of Health and Council Health Inspectors. Among the problems encountered were incorrect addresses and mis-spelling which added considerably to the task, apart from the loss of valuable time.

CHOLERA CASE.

Early in December, 1969 a tourist from the U.S.A. was admitted to Fairfield Hospital suffering from severe cholera. The patient, a 79 year old fully immunized male, had spent one night in Bombay before proceeding by air to Sydney then by domestic airline to Melbourne. After spending one night in a Melbourne hotel, he was subsequently transferred to Fairfield Hospital.

After emergency resuscitation he recovered and later returned home. The organism isolated was *Vibrio cholerae*, biotype El Tor.

No secondary cases occurred in the other three members of the family group, or in the contacts on the two aircraft on which the patient had travelled or at the Melbourne hotel.

For the second time in six week a “Medi-alert” was initiated on similar lines to those applied to the typhoid on the liner.

Fortunately the number of contacts to be traced on the aircraft and at the hotel was smaller, however as the incubation period was much shorter (average 2 to 3 days), the situation was more urgent. In these circumstances use was made of the mass media through television, radio and newspapers. Again the same valuable assistance was rendered as previously in which the municipalities played a prominent role.

INFECTIOUS HEPATITIS.

There was an increase of only 15 notifications (total 2,364) over the figures for 1968. Reference to the table shows the total number of cases notified in the 18 years since 1952 is 40,299.

The previous two epidemic peaks occurred in the years 1955 and 1963, a period of 8 years. If this pattern continues the next peak could be anticipated in 1971, however, there has been some deviation in the yearly trends and caution should be exercised in making predictions. Figures for the first six months of 1970 are significantly higher than for the corresponding period of the previous year indicating an upward trend in conformity with previous observations.

The recent identification of the Australia antigen in the blood of patients has raised hopes that a breakthrough in determining the etiology of hepatitis may not be far away. However, the cultivation of the virus in the laboratory has still to be accomplished as a precursor to evolving a safe and effective prophylactic vaccine. Until this eventuates it is expected that the high incidence will continue in the community.

INFECTIOUS HEPATITIS—NOTIFICATIONS, VICTORIA.

Year.	Notifications.			
1952	112 (First year of notification)
1953	491
1954	1,235
1955*	3,776*
1956	3,056
1957	1,384
1958	1,074
1959	1,452
1960	2,385
1961	3,515
1962	3,463
1963*	3,833*
1964	2,697
1965	1,987
1966	2,137
1967	2,989
1968	2,349
1969	2,364
Total	40,299

* Epidemic peaks

BRUCELLOSIS.

Brucellosis continues to be a public health problem of some significance in dairying areas encompassed by the Shires of Korumburra, Bass, Woorayl and South Gippsland. There were 113 notified cases in the State which is 20 less than in the preceding year.

Dairy farmers, their families and farm labourers were responsible for 76 cases of which 56 were adult males and 12 adult females. These figures reflect the degree of occupational exposure to *Brucella abortus* infection in dairy cattle. No occupational contact was determined in 15 patients; however, 8 of these admitted to consuming raw milk.

It is not a simple problem attempting to determine the role of raw milk consumption as many farmers not only have contact with infected animals but in addition drink milk which is not heat treated.

A number of patients were associated with animals in the course of their work including stock transport drivers. Only one abattoir worker appeared in the notifications which is rather surprising considering the numbers who are exposed. Two patients were veterinary surgeons, one became ill following accidental inoculation with Strain 19 live brucella vaccine. Seven migrants had chronic brucellosis acquired overseas.

Attention was drawn to the probability that the increased number of notifications was a reflection of the greater awareness of the disease by medical practitioners and persons living in the particular area of Gippsland along with improved reporting, rather than in increased incidence.

Progress is being made towards achieving eradication of this disease in animals which at the present stage is the answer to preventing human disease. It is anticipated that following intensive Strain 19 vaccination a test and slaughter programme will be ultimately introduced in this country.

TETANUS.

The incidence of tetanus continues at a low level; five cases being notified, an increase of three over the figure for 1968 which was the lowest on record.

Over the past 10 years annual notifications have varied from 3 to 12 with an average of 8 per year.

Brief details of the cases are as follows:—

A 16 year old boy sustained a minor abrasion of the foot; an 11 year old boy had a splinter in the foot; a 72 year old female injured her hand while gardening; a 69 year old female suffered a penetrating wound of the foot from a garden fork and in another female of the same age no obvious injury was detected.

Injuries occurring during home gardening are continuing to be important foci of tetanus infection. It is again stressed that persons whose occupations and recreations carry a risk of soil contaminated wounds should be immunized. Primary immunization comprises three doses of tetanus toxoid followed by one booster inoculation every 5 to 10 years.

HYDATID DISEASE.

Hydatid disease accounted for 5 notifications of which 2 were migrants who were infected in Italy and Yugoslavia respectively. Of the remainder two were males aged 27 years and one was a 13 year old girl. All three were associated with dogs either directly or indirectly in sheep farming areas.

Progress in the field of health education is being maintained and should receive a stimulus through efforts to reach school children in the focal areas of the Western District. The hydatid pamphlet issued by the Department has been revised recently and is being distributed.

MEASLES.

Measles appeared in epidemic proportions commencing in May, 1969 and declining in September, conforming to the usual 2 year cycle.

Complications of this disease include pneumonia, middle ear infections, croup and encephalitis. In a period of nine months (March to November, 1969) over 600 cases were admitted to Fairfield Hospital alone indicating the degree of morbidity this disease causes every two years. One death occurred in this group, 5 required tracheotomy operations for obstructed airways and fifteen had developed encephalitis. A percentage of patients with the latter complication suffer permanent brain damage.

It was unfortunate that it was necessary to withdraw the live measles vaccine in March, 1969, otherwise many of these illnesses may have been prevented.

MALARIA.

Malaria continues to occur in persons arriving in Australia from areas such as the Territory of Papua and New Guinea who have not taken a "curative" course of anti-malarial drugs after leaving the malarious zones. Many of these illnesses could be prevented if a 14-day course of tablets (usually primaquine and chloroquine) is followed. The Commission recently arranged for a paragraph to be inserted in the Australian Medical Association's newsletter drawing attention to the desirability of a routine curative course.

Of the 24 cases coming to notice, 16 had become infected in New Guinea, 5 in Vietnam (service personnel), 2 in Timor and one in New Britain. With one exception all of the laboratory results available revealed *Plasmodium vivax* parasites.

GASTROENTERITIS.

Apart from some episodes of food poisoning from a common source the pattern of gastro-enteritis was essentially unchanged from recent years.

Salmonella and shigella infections were prominent in the early months of the year however an “anonymous agent” appeared in April and became the epidemic strain producing the so-called “winter diarrhoea” illness. It was not until November that the above bacterial organisms returned to the epidemiological picture.

Infants as a group are the worst affected often requiring hospitalization due to the effects of dehydration.

The outbreaks of food poisoning were caused by Salmonella typhimurium infection presumably from a “carrier” employed by a catering firm. These occurred just prior to Christmas resulting in an appreciable number of cases, 45 adult patients alone were admitted to Fairfield Hospital.

ENTEROVIRUS INFECTIONS.

Virus meningitis was prevalent during the year; ECHO virus type 6 was predominant in the early months as a carryover from the 1968–69 summer epidemic.

After the usual winter falling off in cases this disease showed a recrudescence in October and increased over the ensuing summer months.

Type 9 viruses replaced Type 6 as the epidemic strain.

ECHO virus 9 may also cause a feverish illness accompanied by a rash simulating rubella. From a diagnostic viewpoint the rash persists for more than 3 days and the illness is more severe than rubella.

The confusion between the two diseases in the past has undoubtedly resulted in some pregnant women seeking therapeutic termination of pregnancy on the premise that they were suffering from rubella. This situation has now been clarified with the availability of blood tests which distinguish between the diseases.

RESPIRATORY INFECTIONS.

Respiratory viruses which were predominantly responsible for admission of patients to hospital included Myxovirus influenzae A₂ (Hong Kong), Myxovirus parainfluenzae Types 1, 2 and 3, Respiratory Syncytial (R.S.V.) and rhinoviruses.

The emergence of the Hong Kong strain of influenza virus which was antigenically different from other A₂ strains experienced for a number of years caused a major epidemic in the U.S.A. during 1968. In view of the relatively low level of specific antibodies expected to be present in the blood of the community it was anticipated that a similar epidemic would occur in Australia during 1969.

Although a considerable number of cases of influenza did occur the epidemic fell short of predictions. However the winter of 1970 has seen the impact of Hong Kong influenza which had built up to epidemic proportions by mid-July when this report was prepared.

Cases of croup due to parainfluenzae viruses and bronchiolitis resulting from R.S.V. accounted for considerable numbers of admissions of infants and young children to Fairfield Hospital. These viruses together with the rhinovirus cause milder symptoms in older children and adults, usually in the form of coryzal symptoms or the “common cold” syndrome.

POLIOMYELITIS AND ALLIED DISEASES.

Incidence of Poliomyelitis.

One case of poliomyelitis occurred in the year under review. The patient was a 10 months old child in the metropolitan area, who had received only one dose of Sabin vaccine. Although there was moderately severe initial paresis, a good recovery is being made.

Thus continue the extraordinary results of vaccination against this disease, as shown by the following table of incidence for the past 20 years.

1951	..	..	420	1961	..	..	68
1952	..	..	297	1962	..	..	20
1953	..	..	283	1963	..	..	21
1954	..	..	569	1964	..	..	5
1955	..	..	235	1965	..	..	—
1956	..	..	251	1966	..	..	—
1957	..	..	12	1967	..	..	1
1958	..	..	60	1968	..	..	—
1959	..	..	30	1969	..	..	2
1960	..	..	23	1970 (to 30th June)			—

{ includes case referred to above

The use of Salk vaccine commenced in 1956. As from August 1968, Sabin oral vaccine has been used and in line with the other Australian States, it is now the sole agent. A total of 3,091,810 doses has been distributed to date.

After-care treatment.

The Department continues to provide orthopaedic supervision and physiotherapy services to poliomyelitis patients who are still requiring this help. In addition, splints are supplied when necessary, and only those in more favourable financial circumstances are expected to contribute towards their cost.

Patients who have been diagnosed as suffering from multiple sclerosis or acute infective polyneuritis are afforded similar aid.

An additional seventy patients in these categories have sought help in the past twelve months.

The physiotherapy staff of the Poliomyelitis Division has also continued its work in psychiatric hospitals, the Allambie Reception Centre, and at Ante-natal Clinics conducted by the Maternal and Child Welfare Branch.

IMMUNIZATION MATERIAL ISSUED TO MUNICIPALITIES 1969/70
(with figures for 1968/69 for comparison).

Material.										Number of Doses.	
										1968-69.	1969-70.
Measles Vaccine	..	..	..	..	..	..	..	..	..	..	77,710
Sabin Vaccine	..	..	..	..	..	..	..	..	..	1,329,720	1,624,590
Salk Vaccine ..	..	..	..	..	..	..	..	..	..	112,304	2,107
Triple Antigen	..	..	..	..	..	..	..	..	..	291,220	294,010
Combined Diphtheria-Tetanus Prophylactic	..	..	..	..	..	..	..	..	..	104,186	110,185
Purified Tetanus Toxoid (A.P.A.)	..	..	..	..	..	..	..	..	..	55,868	50,262
Smallpox Vaccine	..	..	..	..	..	..	..	..	..	24,709	23,416
Schick Test Toxin	..	..	..	..	..	..	..	..	..	1,810	3,406
Purified Diphtheria Toxid (Diluted)	..	..	..	..	..	..	..	..	..	3,497	1,785
Diphtheria Prophylactic (P.T.A.P.)	..	..	..	..	..	..	..	..	..	1,327	1,072

GOVERNMENT CLINIC.

During this period 3,115 males and 1,385 females (total 4,500) attended the Government Clinic for examination. These included 161 males and 88 females (total 249) who presented for the purpose of a blood test as required by the U.S.A. and other countries for visa purposes. Venereal Disease:—The following table shows the number of cases of gonorrhoea and syphilis detected at the Clinic with comparative figures covering recent years:—

TABLE I.
GOVERNMENT CLINIC.

Year.					Total Patients.	Gonorrhoea.			Syphilis.		
						Male.	Female.	Total.	Male.	Female.	Total.
1969..	..	..	..	..	4,500	877	644	1,521	64	10	74
1968..	..	..	..	..	4,114	769	296	1,065	51	3	54
1967..	..	..	..	..	4,255	776	378	1,154	40	7	47
1966..	..	..	..	..	4,205	832	379	1,211	22	3	25

It can be seen that there was a significant increase in the number of both males and females seeking investigation. This is considered to have resulted from publicity given to this subject in the past twelve months through the press, television and also articles on venereal disease written up in papers distributed by the various student bodies.

The table also shows an increase in gonorrhoea detected in females at the Government Clinic compared with 1968/69 this being due to the increased number of patients seeking examination and more intensive contact tracing. It is intended to step up this aspect of the work of the clinic in the future.

The total number of reported cases of both diseases from all sources for the year is as follows:—

TABLE II.

Source.					Gonorrhoea.			Syphilis.		
					Male.	Female.	Total.	Male.	Female.	Total.
Government Clinic	..	..	..	..	877	644	1,521	64	10	74
Others—										
Metropolitan	..	..	..	..	321	49	370	26	36	62
Country	..	..	..	..	19	4	23	5	1	6
Total 1969/70	..	..			1,217	697	1,914	95	47	142
1968-69	..	..	..	..	1,179	401	1,580	72	24	96
1967-68	..	..	..	..	1,307	465	1,772	68	38	106
1966-67	..	..	..	..	1,344	477	1,821	47	9	56

The following table is a breakdown of the notified cases of syphilis into various stages:—

TABLE III.

Primary.		Secondary.		Latent.		Tertiary.		Congenital.		Total.
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
39	7	32	19	20	20	2	..	1	2	142

It is with some concern that three cases of Congenital Syphilis were reported for the year, as against nil for last year. Although more cases of syphilis were reported compared with 1968, it should be recognized that there are only 142 cases for the entire State. The problem of syphilis in homosexuals is still a major one.

TABLE IV.

Figures for the Calendar Year 1969, from all sources.

NOTE: G.C. Treated at Government Clinic. E. Treated elsewhere.

		Gonorrhoea.				Syphilis.			
		Male.		Female.		Male.		Female.	
Jan-Dec. 1969	..	G.C. 796	E. 379	G.C. 372	E. 78	G.C. 70	E. 27	G.C. 8	E. 46

One thousand one hundred and sixty-eight cases of gonorrhoea and 78 of syphilis were treated at the Government Clinic. The total number of patients who attended during that period was 4,183. Referral to these tables above, and Annual Report figures show that there is a greater increase in the number of patients attending the Clinic during the last six months, and of the marked number particularly in the Female Section.

Fairlea Women’s Prison.—A total of 258 prisoners were examined and of these, 80 were diagnosed as suffering from gonorrhoea with one case of secondary syphilis.

Clinical Trials.—An investigation into the relative efficiency of 1 dose therapy with (a) 300 mgm of doxycycline, (b) 1500 mgm of tetracycline and nystatin as compared with (c) 3 x 2 million daily injections of procaine penicillin in the treatment of adult male gonorrhoea, has been in progress since September, 1969. It is expected that the trial will not be completed before September, 1970.

Overseas Study Tour.—During the year Dr. K. F. Brennan, Medical Officer in Charge of the Clinic, proceeded overseas on a study tour sponsored by the World Health Organization.

EXOTIC DISEASES UNIT, FAIRFIELD.

The number of in-patients suffering from Hansen’s Disease (leprosy) has been reduced to two males following the discharge of a Greek female patient during the year. There have been no admissions since 1966.

All former patients living in the State receive regular supplies of drugs and a routine examination twice a year as out-patients.

A high standard of medical, nursing and occupational care is maintained at the hospital.

All buildings have been kept in a satisfactory state of maintenance and the Unit has been designed for the immediate acceptance of persons found to be suffering from any other exotic disease requiring complete isolation facilities.

MICROBIOLOGICAL DIAGNOSTIC UNIT.

Enteric Organisms.

Specimens from four sources of typhoid in Victoria were examined, in addition *Salmonella typhi* was isolated from a pancreatic abscess occurring in a middle-aged woman. In one case where a probable carrier was found, the patient's grandmother was excreting *Salmonella typhi* of phage types D1 and D4 while D1 was isolated from the case.

The isolation of typhoid bacilli, from a kitchen attendant on an ocean liner revealed the probable source of nearly a score of cases of typhoid in several countries occurring among the passengers.

Three cases of *Salmonella paratyphi A* infection occurred in Victoria, the first since 1963; one patient had recently returned from India. There were no cases of *Salmonella paratyphi B* however six cultures were submitted from interstate for phage-typing.

The number of strains of other *Salmonella spp.* rose considerably of which the major component was supplied by strains isolated from human sources in Victoria. As in previous years, *Salmonella typhimurium* was far the most common species (74·6 per cent.) with *Salmonella newport* next (6·7 per cent.). Two isolates of *Salmonella cairo* represented the first time this *Salmonella* had been detected in Victoria.

Two substantial incidents of *Salmonella* food-poisoning occurred. In one, *Salmonella newport* derived from wurst, ham and sausage, caused widely dispersed cases. Three workers at the smallgoods factory where the foods were prepared, were found to be excretors. In the other, numerous cases of *Salmonella typhimurium* infection followed pre-Christmas functions handled by a particular catering firm. Eleven members of the catering staff were excretors.

The Unit identified 592 strains of *Shigella spp.* during the year. Of these, 332 were from Victoria, the majority in a mental institution. *Shigella sonnei* (60 per cent.) was the commonest species isolated outside this source. In line with previous experience, most of these strains could not be typed by the colicine system.

Brucellosis.

The increased awareness of this condition resulted in a still further increase in the number of specimens submitted for serological examination. New patients totalling 258 not previously on the Unit's records proved to have titres suggestive of brucellosis. Nearly all of the cases came from South-Western Gippsland.

Diphtheria.

Isolations of *Corynebacterium diphtheriae* in Melbourne were made in two periods, one from March to May and the other in November–December. Three toxigenic strains were isolated in the earlier period, one a serologically untypable *intermedius* strain and two *mitis* serotype Johnson. The other five were non-virulent *mitis* serotype 2. This pattern of virulent strains being serotype Johnson and non-virulent serotype 2 was repeated in strains sent from South Australia.

The summer outbreak yielded 16 strains in 1969. All were virulent *gravis* strains serotype 6387, one was atypical.

Gonorrhoea.

There was a marked increase in the number of swabs submitted for culture and a decrease in the number of smears. This was associated partly with a survey of new admissions to a penal establishment. The survey did not reveal many cases otherwise undiagnosed. In addition, there is an increasing tendency by practitioners to submit both types of specimen from suspected cases. This affords an increased rate of diagnosis and an opportunity to detect changes in drug sensitivity patterns. No serious tendency for penicillin resistance is apparent.

Food and Water Microbiology.

Of the food samples examined, nearly half were submitted as a result of reported outbreaks of food-poisoning. A survey of smallgoods revealed that while recognized agents of food-poisoning were absent, *Escherichia coli* of faecal origin were common and in some cases very numerous.

General.

The Unit, assisted by laboratories in all States, participated in a survey of *Shigella* strains sponsored by the World Health Organization. Over 100 were selected and checked before being sent to the Japanese National Institute of Health.

Owing to generous assistance from several sources, including the Department of Health, it was possible to send the Chief Bacteriologist, to London for training in the phage-typing of *Salmonella typhimurium*. Owing to the pressure of other duties, it has not been possible to start this urgently required service. The position of this organism is so dominant in Salmonellosis that only by clearer identification of strains can the most effective means of control be assessed.

In time, the decision to make salmonellosis and food-poisoning notifiable together with the increased public interest in pollution will probably influence considerably the work carried out by the Unit. As a result, the facilities for keeping abreast of developments and for dealing with sudden outbreaks will be needed.

MICROBIOLOGICAL DIAGNOSTIC UNIT.

ANNUAL LIST OF EXAMINATIONS.

A Comparison for Years, 1968 and 1969.

Examination.	1968.	1969.
1. <i>Upper Respiratory Tract Infections</i> —		
(a) Diphtheria—		
(i) Cultures	3,045	3,953
(ii) Isolations and identifications	67	31
(b) B.-Haemolytic Streptococci—		
(i) Cultures	3,517	3,953
(ii) Groupings	257	286
(iii) Anti-Streptolysin O. titre tests	635	444
(c) Vincent's organisms	3	..
2. <i>Enteric Infections (Salmonella and Shigella)</i> —		
(i) Cultures	4,474	3,629
(ii) Identifications	1,758	1,672
(iii) Widal	229	642
3. <i>Serological Investigations</i> —		
(a) Brucella	1,485	1,634
(b) Glandular Fever	64	53
(c) Leptospirosis	253	182
(d) Typhus Fever	33	19
(e) Rubella H.I. .. .. .	..	325
(f) Miscellaneous	21	11
4. <i>General Bacteriological Examinations</i> including endogenous infections, food poisoning outbreaks, microbiological examination of food, milk, &c.—		
(i) Cultures	1,030	1,151
(ii) Drug sensitivities	2,070	1,657
5. <i>N. gonorrhoeae and related infections</i> —		
(a) <i>N. gonorrhoeae</i> —		
(i) Smears	751	728
(ii) Cultures	3,093	3,867
(b) Trichomonas and Monilia	27	3
6. <i>Medical Mycology</i> (Microscopy and Cultures).. .. .	71	86
7. <i>Water Examinations</i>	317	348
Totals	23,200	24,674

CHEMICAL LABORATORY.

The year 1969 was eventful in that the Laboratory moved into its new quarters, and now has adequate space to carry out its duties under good conditions.

Samples examined for the year totalled 1983 covering as it does a wide spectrum of analyses, although foods as usual constituted the largest group. A significant and possibly disturbing increase occurred in the percentage of municipal food samples which failed to meet the required standards, 8.1 per cent. showing non-compliance in contrast to 4.3 per cent. and 7 per cent. respectively, for the previous two years.

In addition to the analytical work, the laboratory has also dealt with a large number of inquiries on various aspects of public health chemistry and food regulatory problems.

The Laboratory has acquired a gas-chromatograph to be used for general analytical problems, and it is hoped that this instrument will enable the staff to tackle the determination of various food additives and food adulteration more efficiently.

The year's activities are summarised below.
Meat and Meat Products.

	Number Examined.	Number not Complying.	Percentage not Complying in—		
			1969-70.	1968-9.	1967-8.
Meat—					
Fresh	251	7	2.8	2	3
Chopped	234	30	12.8	8	10
Corned	5	0	0	0	..
Manufactured	105	3	2.9	0	3
Canned	2	2	100	0	75
Sausages and Sausage Meat	318	42	13.2	11	12
Tripe	6	2	33	0	24
Meat Pies	17	5	29.4	23	37

One sample of sausage meat contained 17 grains of sulphur dioxide per pound, nearly five times the permitted amount. The majority of sausage and sausage meat samples which did not comply were deficient in meat and fat.

All the 37 samples of fresh and chopped meat not complying with the standards contained sulphur dioxide preservative, ranging from 0.3 grains to 11.9 grains per pound. Compared with other types of meat products a disturbingly high proportion of samples of meat pies did not comply on account of insufficient meat content.

One sample of manufactured meat contained only 47 per cent. of total meat instead of 66 per cent.; this is the first occasion a manufactured meat has failed to meet the required standard for meat content.

Dairy Products (1968-69 figures in brackets).

Type.	Number examined.	Number not complying.
Milk—fresh	158 (240)	2
Skim Milk Powder	2 (0)	0
Butter	23 (29)	0
Cream—Fresh	13	0
Cream—Thickened	5 } (26)	
Cream—Reduced	2 }	
Cheese	31 (15)	0
Flavoured Ice	6	0
Ice Cream	5 (2)	0
Yoghurt	7 (2)	5

One sample of milk contained 7½ per cent. of added water, and the other sample was deficient in milk fat.

Pesticides.

The number of samples tested was slightly higher than last year's total. Analytical results are given below:—

Nature of Sample.	Number.	Analyses carried out.*	No. of samples in which pesticides were detected.
Milk	22	22 for O.C. 7 for O.P. 1 for Atrazine	1 0 0
Cherries	10	10 for O.C. 10 for Arsenic 10 for Dithiocarbamates	7 3 3
Flour	13	13 for Malathion	12
Water	6	6 for O.C. 3 for O.P.	0 0
Strawberries	10	10 for O.C. 10 for O.P. 10 for Carbaryl 10 for Dithiocarbamates	10 0 0 2
Sludge	1	1 for O.C.	0
Animal Fats	118	118 for O.C.	102
Cucumbers	10	10 for O.C.	2
Apples	20 20	20 for Arsenic 20 for Carbaryl	17 4
Human Fats	20	20 for O.C.	20
Human Milks	23	23 for O.C.	23
Total	253	334	

* Legend : O.C. Organochlorine compounds. O.P. Organophosphorus compounds.

A fairly comprehensive survey of animal fats was carried out, and although 86 per cent. of these samples contained pesticides, the levels were generally quite low. Some 20 samples of human fats were examined; all samples contained pesticides, the levels being of the same order as those obtained in overseas surveys. A feature of both these surveys was the prevalence of the fungicide HCB; this chemical is used to treat seed wheat and with good agricultural practice should not be present in foodstuffs as consumed.

None of the fruit and vegetable samples tested exceeded the regulatory limits for pesticides. Of 22 milk samples tested, only one contained any detectable organo-chlorine pesticide residue.

Water and Trade Wastes.

Seventy-four samples of river sludge, lake water and industrial trade wastes were examined for polluting substances, 18 of the samples being taken from the Gippsland Lakes as part of a survey of that area carried out by Departmental Officers. The remaining samples were mainly wastes from industrial premises. Several of these samples contained contaminants in excess of the guidance limits for trade wastes set by the Commission of Public Health and corrective action was taken.

Contaminating Substances in Food.

Extraneous materials continue to find their way into different types of foods, indicating a significant degree of carelessness during manufacture and/or packaging.

Material.	Contaminant.
Soft Drink (6)	Mould, insect larva
Bread (7)	Mouse faeces, metal particles, grease, mould
Milk Carbon (2)	Carbon particles, mould
Cream	Mould
Sugar (2)	Glass fragment, carbon particles
Powder	Lead Carbonate
Tea	Mould
Beans	Mould
Dates	Sodium Carbonate
"Dim-Sim"	Animal hairs
Dripping	House fly
Apricot Can	Particles of stone or rock

Spirits.

6 samples submitted by the Liquor Inspector were found to be low in alcohol content.

Miscellaneous.

A cargo of Michigan Beans were examined, and found to be heavily contaminated with mould, and unfit for human consumption.

Several cases of tea were also found to be infested with mould. These foods were destroyed.

A white powder found in a ship's hold adjacent to cases of tea was found to be lead carbonate, a poisonous substance.

Various brands of Fetta cheese were found to contain benzoic acid, a non-permitted preservative, originating from benzoyl peroxide, a bleaching agent used in the manufacture of this cheese.

Seven samples of bread were examined under the provisions of the Bread Industry Act and found to comply with requirements.

FOOD STANDARDS COMMITTEE.

During the year the major business considered by the Food Standards Committee was a number of proposed draft standards recommended by the National Health and Medical Research Council, on the advice of the Commonwealth Food Standards Committee, which were designed for uniform adoption throughout the various States.

In addition to a considerable number of amendments to existing standards the following new uniform standards were adopted:—

- Brewed Soft Drinks

Rice

Spirits and Liqueurs
- Tomato Products

Vanilla Essence

Wine.

In addition, the Committee approved of a new uniform standard for Flours, Meals, and Bread. With regard to the sections referring to bread and bread ingredients a recommendation was made to the Minister for Labour and Industry that these sections be incorporated in the Schedule to the Bread Industry Act.

PROPRIETARY MEDICINES ADVISORY COMMITTEE.

Five hundred and thirty-nine applications for registration of preparations as proprietary medicines were received by the Department in the past twelve months. This brings the number of applications received since the inception of the scheme to 17,861, of these a total of 14,779 have been accepted for registration by the Proprietary Medicines Advisory Committee.

During the past year 37 meetings of the Committee were held to examine new applications for registration. In addition the Committee met 11 times to review registrations of more than 10 years standing, 350 of this type of registration have now been examined.

One supplementary register was published during the year containing a total of 500 products, 110 deletions were made from the register for the same period.

Once more a constant watch has been kept on newspapers and magazines published in Victoria for breaches of the Health Act by advertisers of proprietary medicines, and appropriate action has been taken in detected cases of offending advertisements.

POISONS DIVISION.

Legislation introduced during the year comprised the following:—

Poisons (Labelling) Regulations 1969 (No. 2).

These require that all preparations for human therapeutic use that consist of or contain phenacetin should be labelled with a warning against their use in large amounts or for long periods. They also provide that the warning already prescribed for hair dyes containing diamines and other alkylated benzene diamines derivatives should be amended to warn against the use of these preparations for dyeing eye lashes or eye brows.

Drugs of Addiction and Restricted Substances Regulations 1969.

These extend to the 1st January, 1972, the exemption from the requirements of the Drugs of Addiction and Restricted Substances Regulations 1966, that allows registered general nurses or registered mental nurses employed in the Mental Hygiene Branch to dispense prescriptions for restricted substances under the direction of a medical practitioner.

Special Poisons (Ovulatory Stimulant) Regulations 1970.

These amended the Special Poisons (Ovulatory Stimulant) Regulations 1968 to permit the pharmaceutical chemist in charge at a number of the larger metropolitan public hospitals to hold ovulatory stimulants at the hospital on behalf of the person on the staff of the hospital who holds a warrant to possess and use ovulatory stimulants.

Drugs of Addiction and Restricted Substances Regulations 1970.

These restrict the administration, prescription or supply by medical practitioners of three amphetamine drugs, amphetamine itself, dexamphetamine and methylamphetamine, to the treatment of specific illnesses, following the proclamation on 29th April, 1970 of these drugs of addiction. Dentists and veterinary surgeons are not permitted to administer, supply or prescribe these three drugs. The regulations provide that a medical practitioner may, without any special permission, administer, supply or prescribe the three drugs mentioned for the treatment of either a person suffering from narcolepsy or a brain-damaged child who is hyperkinetic, provided he endorses the prescription "Regulation 74A". If he wishes to treat a patient with these drugs for some other medical condition, he must first obtain a permit from the Chief Health Officer.

All prescriptions written and all permits issued in accordance with these regulations are required to be forwarded to the Chief Health Officer as soon as they have been dispensed for the last time and cancelled.

Schedules to the Poisons Act 1962.

During the year a number of amendments were made to the Schedules to the Act. These resulted from recommendations by the Poisons Advisory Committee based on changes to the Uniform Poison Schedules recommended by the National Health and Medical Research Council, or on its consideration of submissions from manufacturers.

As in previous years, a revised edition of the Schedules booklet was again issued for use by all those concerned with poisons.

Commonwealth-State Meetings on Drug Control.

Following on the establishment of the National Standing Control Committee on Drugs of Dependence early in 1969, considerable progress has been made during the current year in implementing the recommendations made by the Committee to further meetings of the Commonwealth and State Ministers.

The Division's Senior Pharmaceutical Chemist was a member of a three man working party which devised and brought into operation in all States a weekly computer-based return of all transactions in drugs of addiction by licensed and authorised persons. The introduction of this system required that Customs and Health Officers, jointly in all States should carry out in the first week of January, 1970, a physical stock-check of all drugs of addiction held in stock by importers, manufacturers and wholesalers.

The weekly return system has now been in operation for six months and computer print-outs are being provided to direct the Division's inspectorial activities to possible leakages of drugs from the licit to the illicit market.

Health (Drug) Education.

The Health Working Party established by the National Standing Control Committee on Drugs of Dependence continued to meet and under its auspices a fourteen day seminar on the drug aspects of health education was held in Sydney in February, 1970.

Three officers of the Department attended this course, following which co-ordination of talks to the public by the Division and Departmental staff has been achieved.

Drug Recalls.

The problem of sub-standard pharmaceutical products being distributed before they are detected continues to be a real one.

Again during 1970 officers of the Division have supervised a considerable number of recalls of drugs brought about by a number of factors including mislabelling, intermingling of different types of tablets and non-sterile products.

It has been noted, however, that the pharmaceutical industry is becoming much more aware of this problem and is providing immediate advice of any products requiring recall.

Plant Inspections.

Division officers in company with officers of the National Biological Standards Laboratory, Commonwealth Health Department, have carried out a number of inspections of pharmaceutical manufacturers' premises to ascertain whether the companies concerned are complying with the Code of Good Manufacturing Practice.

These inspections have indicated in some instances the need for companies concerned to make changes in manufacturing techniques, plant and storage arrangements and other aspects of manufacturing that affect product purity.

Restrictions on Amphetamines.

As mentioned above, restrictions were imposed during the year (April, 1970) on the availability of the drugs amphetamine, dexamphetamine and methylamphetamine.

This action followed recommendations by the National Health and Medical Research Council and the Poisons Advisory Committee, both of which bodies felt that at the same time as the legitimate medical indications for these drugs had become limited to a small number of specific diseases, they were increasingly being used as illegal stimulants.

All registered medical practitioners were notified of the restrictions by circular letter and pharmaceutical organisations were assisted with information on the changes for communication to their members through their professional and trade bulletins.

The regulations bringing about the restrictions provided for medical practitioners to apply to the Chief Health Officer for a permit where they consider one of the Schedule Eight amphetamines was needed for the treatment of a condition other than the two specified in the legislation. To the 30th June, 1970, some one hundred permit applications were received.

Of these, 72 were granted and the balance were, in the main, advised that the condition they were treating did not require a permit. A very few applicants were asked to supply additional information for evaluation of the case. To the same period, about sixty prescriptions written for patients suffering from narcolepsy or brain-damaged children suffering from hyperkinesia were received in the Department after they had been dispensed and cancelled.

At the request of a number of pharmacists, stocks of unwanted amphetamines were received by the Division for destruction.

Drugs of Addiction Booklet.

At the request of the Australian Medical Association (Victorian Branch) a booklet outlining the requirements of the Drugs of Addiction and Restricted Substances Regulations 1966, as they affect medical practitioners, was prepared and posted to all registered medical practitioners in the State.

As a result of the issue a good many telephone enquiries on various aspects of the Regulations were received from doctors and there was a marked increase in the number of doctors applying for permits to prescribe drugs of addiction for a period in excess of eight weeks.

Overseas visit by Senior Pharmaceutical Chemist.

During the year the Division's Senior Pharmaceutical Chemist, Mr. R. H. Borowski was awarded a three months World Health Organization Travelling Fellowship to enquire into the control of narcotics and drugs of dependence.

In carrying out this Fellowship he visited Singapore, Geneva (where he made contact with the International Narcotics Control Board, The United Nations Division of Narcotic Drugs and the World Health Organization), London, Canada, U.S.A. (in which at Washington he attended the Narcotic Officers Training Course conducted by the U.S. Department of Justice, Bureau of Narcotics and Dangerous Drugs) and Hong Kong.

The information which Mr. Borowski has obtained on these visits with respect to drug controls, health (drug) education and drug treatment programmes will be of assistance to the Department in the future.

Pharmacy Security.

Concern was caused during the second part of the year by the marked increase in the number of thefts of drugs of addiction and restricted substances from retail pharmacies. The number of such thefts for the first five months of 1970 equalled the total number for 1969. A similar increase was reported from other States.

At the request of the Chief Health Officer the Poisons Advisory Committee undertook, and is still currently engaged in, an examination of the whole question of drugs of addiction security in pharmacies and professional rooms. Suggestions for dealing with the problem are being sought from all interested organizations. Consideration is also being given to amendments to the Drugs of Addiction and Restricted Substances Regulations to make safe-like storage mandatory for all drugs of addiction in pharmacies and professional rooms.

Licensing Activities.

Administration of the licensing system established by the Poisons Act continued during the year. The number of licences and permits currently renewed are as follows:—

Licences to manufacture drugs of addiction	..	..	..	14
Licences to manufacture other poisons	..	..	..	203
Licences to Sell Drugs of Addiction by Wholesale	..	..	..	19
Licences to Sell Other Poisons by Wholesale	..	..	..	319
Industrial Permits	..	..	..	1,403
General Dealers Licences	..	..	..	307
Poisons Licences	..	..	..	4,521

In addition, there are currently 281 holders of Hospital Authorities to possess drugs of addiction and restricted substances, and 264 holders of Educational, Advisory or Research Permits.

POISONS INFORMATION CENTRE.

During the year 3,857 inquiries were received at the Centre. This is 717 (or nearly 23 per cent.) more than the total of 3,140 in the previous year and more than double the total of 1,900 recorded in 1963, the Centre's first full year of activity.

The total number of calls during March 1969 was 351, received at an average of 17.55 calls per working day, well in excess of the previous record of 310 calls at an average of 15.5 per day set in November 1968. April 1969, when 315 calls were received was nearly as busy as the previous months. May 1969, with 344 calls also would have broken the 1968 record. Then in July 1969, 405 calls were received at an average of 17.6 calls per day, setting new all-time records for the highest number of calls in a calendar month and for the highest daily average during a month. October (330 calls), December (360 calls) and November (15.9 calls per day) also were notable months by pre-1969 standards.

The number of inquiries from doctors in the Melbourne area was 660 compared with 690 in 1968 and 613 in 1967. A further 9 inquiries came from interstate doctors (7 in 1968 and 10 in 1967) while the number from doctors in other localities outside Melbourne was 230, a substantial increase over the corresponding totals of 174 in 1968 and 169 in 1967. There was a marked rise also in the number of calls from nursing sisters, pharmacists and others associated with the medical profession, from 490 in 1967 and 474 in 1968 to 578 in 1969.

Thus the total number of calls from members of the medical profession and associated persons rose from 1345 in 1968 to 1477 in 1969. There was, however, a comparatively large increase in the number of calls from the general public, from 1795 to 2380 in the same period. Consequently, although their number continues to rise, the professional calls now amount to only 38·1 per cent. of the total for the year, compared with 42·8 per cent. in 1968, 45·4 per cent. in 1967, 48·4 per cent. in 1966 and 51·3 per cent. in 1965. It is known that in many cases the parents have been advised by doctors or their receptionists to contact the Centre direct and this practice continues despite the fact that the only sound advice that can be given to many of these parents is to place the matter in the hands of their medical advisers. It is again emphasized that the Poisons Information Centre was established primarily to provide technical information and advice to the medical profession.

COMMUNITY WELFARE SERVICES.

The expansion of Home Help Services and Elderly Citizens' Clubs has again continued and it has become increasingly apparent that without these schemes many more persons would require some, or additional, hospital care. The importance of the service provided to the community through Home Help Services and Elderly Citizens' Clubs is reflected in the creating and filling during the year of the position of Assistant Chief Health Officer (Community Services).

During the period under review Miss B. G. Yeoman, Adviser, Community Welfare Services, represented the Department at the Eighth International Congress on Gerontology held in Washington, U.S.A. and examined developments in other countries. It was found that as in Australia great emphasis is placed on domiciliary assistance as a means of preserving the health of the aged.

It was observed that the services subsidized by the State Government of Victoria compare favourably with similar services provided in other countries visited. However, some countries do provide broader programmes which include the provision of health visitors, visiting occupational therapists, physio-therapists, social workers, nursing aides, night sitters, and bathing attendants. There is no doubt that these additional services do assist the old people to maintain a standard of health and happiness not possible in communities where they are not available. The overall cost is generally far less than it is for hospital or institution care.

Home Help Service.

The Home Help Service provides help in the home when the mother of a young family is prevented from attending to her family's needs, and to the aged and infirm when certain household tasks are beyond their strength. It is also available to others when they are unable to attend to their normal household duties.

The aim of this service is to preserve the health of the young family and to help the aged and infirm to live as long as possible in their own homes.

Home Help assistance may be made available to the young families either on a full or part time basis for a period up to three weeks, although in exceptional circumstances an extension of time may be given. Assistance to the aged and infirm may be given for an indefinite period providing the maximum number of hours given each week is not in excess of 20. Other cases in need of this type of assistance may receive help for an emergency period, but consideration is given in the case of the chronically ill to providing hourly assistance much on the same basis as to the aged. Eligibility for the service is a medical certificate at the onset and again from time to time when help beyond an emergency period is necessary.

The Home Help is made available to assist a family with the day to day household tasks such as cleaning, washing, ironing and shopping and with the care of children. Similar household assistance is given to the aged although when helping such persons it is expected that certain types of spring cleaning tasks will be undertaken.

Each person receiving the service is expected to contribute an amount assessed according to their financial position.

The quality of the services varies a great deal from district to district and not all municipalities conduct services. This is partly due to local needs and conditions and partly to the limited amount of finance made available towards the salaries of Home Helps. The subsidies made available by the Victorian Government to Municipal Councils which establish, maintain or financially assist a Home Help Service is four-fifths of the net cost of the service to the Municipality to the following wage ceilings for Home Helps—full time \$24 per week, part time 60c per hour and hourly 72·5c per hour. (This hourly rate includes a loading in lieu of sick and annual leave entitlements). In addition a subsidy of \$100 per annum is made available towards administration costs.

Details regarding the subsidized Home Help Services are as follows:—

Total number of Councils granted subsidies	..	..	..	173
Number of services operating	..	..	..	151
Total number of Councils granted subsidies in respect of transport costs				108
Total cost to the Government for the Home Help Service for the 1969–1970 financial year	..	..	..	\$706,762
Total number of householders assisted during the 12 months period 1st January to 31st December 1969	..	..	..	19,710

These were as follows:—

Mothers	..	..	..	..	..	9,770
Elderly	..	..	..	..	..	7,032
Others	..	..	..	..	..	2,908
Cases for whom no assistance was available	..	..	..	..	..	579
Home Helps engaged during the above period	..	..	..	..	..	1,805
Full time	..	..	..	..	..	253
Part time	..	..	..	..	..	615
Hourly	..	..	..	..	..	937

Elderly Citizens Clubs.

Clubs for the elderly aim at preserving the health of the aged and infirm, thus enabling them to live as long as possible in their own homes.

These clubs provide the elderly with an attractive meeting place where they may enjoy the companionship of others of their own age group and participate in the activities best suited to their needs and partake of various services aimed at preserving their health. Thus they help to overcome the loneliness which so often accompanies old age and which is directly responsible for mental and physical deterioration. Lonely old people tend to live more and more in the past and to stay at home, gradually losing interest in their appearance and neglecting their health by an inadequate diet. Clubs give them back an interest in life and make them feel, as indeed they are, an important part of the community.

To assist in providing these clubs, the Government makes available to Municipal Councils a capital grant of \$10,000 towards the cost of establishing clubrooms for the elderly. The grant is payable on a basis of \$2 of grant for each \$1 spent by the Council and is contingent on the approval by this Department of the site, plans and specifications of the proposed clubrooms. In addition, a maintenance subsidy of up to \$2,000 per annum is made available to Councils towards the cost of conducting an Elderly Citizens Club. This amount is payable on a basis of four-fifths of the net cost to the Council of the club; net cost being the amount remaining after deducting from the gross running costs of the club all moneys received by way of subscriptions, contributions or donations or collection of charges made for any services provided. It is intended to assist with such day to day expenditure as heating, lighting, wages of staff, purchase and delivery of food for light refreshments and hot meals, and chiropody given at the clubrooms.

Clubs are encouraged to provide a wide variety of activities and services which will meet the many needs of the elderly, as the clubs are intended for the benefit of all elderly persons. All services, with the exception of Meals-on-Wheels, are required to be provided within the clubrooms, as the whole idea behind clubs is to encourage the elderly to remain in the community by drawing them out of their homes and bringing them together in a congenial meeting place. The Meals-on-Wheels Service is intended to assist only such aged and infirm persons who, because of a medical condition, have no other means of obtaining proper nourishment. To assure this is so, a medical certificate is a prerequisite for this particular service and clubs are asked to provide, wherever possible, hot meals at the clubrooms. The number of clubs providing health services for the aged are increasing each year. During the last 12 months a further 8 Meals-on-Wheels services were commenced and an additional 3 clubs commenced providing hot meals at the clubrooms. Other activities and services include light refreshments, foot treatment, handicraft, cards, carpet bowls, entertainments and discussions. The number of clubs providing chiropody increased from 60 to 73.

Elderly Citizens' Clubs.

New Clubs granted subsidies	14
Total number of clubs now subsidized	182
Clubrooms opened during year	11

Membership 30,139

Hot Meal Services

Number of clubs providing hot meals	95
Average number of meals provided weekly at club	6,041
Average number of meals provided weekly through meals-on-wheels	10,992
Clubs serving meals at clubrooms	40
Clubs including meals-on-wheels as a service	64

Handicraft Classes

Number of clubs conducting handicraft classes 28

Details of the subsidies granted are as follows :—

Total number of Councils now granted subsidies—126 for 192 clubs	
Capital and maintenance	141
Capital only	27
Maintenance only	24
Government Expenditure during the twelve months period	\$280,000
Capital expenditure	\$100,000
Maintenance expenditure	\$180,000
Capital commitments at end of year	\$167,192

INDUSTRIAL HYGIENE DIVISION.

Medical Examinations.

During the year, 75 individuals were reviewed and assessed for occupational diseases, and the diagnoses were grouped as follows:—

Pneumoconiosis	28
Other occupational lung diseases	2
Occupational Cancer	10
Excessive Lead Absorption	4
Non occupational conditions	24
Routine examinations	7
	<hr/>
	75
	<hr/>

Further subclassification of these major groups is as follows:—

A. <i>Pneumoconiosis</i>	28
Silicosis	23
Siderosis	3
Anthracosis	1
Asbestosis	1
B. <i>Other Occupational Lung Disease</i>	2
Western Red Cedar Asthma	1
Pigeon Fancier's Lung	1
C. <i>Occupational Cancer</i>	10
Mineral Oil—Carcinoma of Scrotum	4
Asbestos—Pleural Mesothelioma	3
Asbestos—Carcinoma of Lung	3
D. <i>Excessive Lead Absorption</i>	4
High Blood and Urinary readings but not clinically poisoned	3
High values, clinically poisoned	1

E. <i>Non Occupational Conditions</i>	..	..	..	..	24
Chronic Bronchitis	..	..	..	..	7
Anxiety Reaction	..	..	..	..	5
Pulmonary T.B.	..	..	..	..	2
Multiple Lipomata	..	..	..	..	1
Pityriasis Rosea	..	..	..	..	1
Acute Enterocolitis	..	..	..	..	2
Myocardial infarction	..	..	..	..	1
Obesity	..	..	..	..	1
Quinsy	..	..	..	..	1
Melancholia	..	..	..	..	1
Allergic Asthma	..	..	..	..	1
Undiagnosed fever	..	..	..	..	1

Medical Surveys.

A. Asbestosis

- (1) Further to the previous 15 reported cases of pleural mesothelioma the Division now has knowledge of another 5 cases whose occupational histories are at present under investigation. At least two are known to have worked in naval dockyards many years ago.
- (2) Follow up radiological review study continues of factory personnel exposed to asbestos and 268 large film chest X-rays were taken. The results are classified broadly as follows:—

Total number of chest X-rays	..	..	..	..	268
No evidence of asbestosis	..	..	..	..	161
Possible cases of asbestosis	..	..	..	..	81
Probable cases of asbestosis	..	..	..	..	19
Certain cases of asbestosis	..	..	..	..	7

B. Silicosis

Emphasis continued on investigation of possible cases of silicosis arising from the burnt clay industries, and other occupations where exposure occurred to dusts containing free silica. The firms concerned were most co-operative. 195 large film chest X-rays were taken. 11 cases of silicosis were diagnosed. Many cases will need further review because of the presence of suspicious, but as yet non-specific, increased radiological markings.

C. Scrotal Carcinoma

Retrospective examination of the occupational histories of the 5 cases of scrotal carcinoma notified to the Cancer Registry in a recent two-year period revealed significant occupational exposure in 4 cases. A paper describing this small pilot survey has been accepted for publication.

Scientific Activities.

The scientific staff has continued to meet the many and varied demands from industry for scientific assessment and correction of various industrial hazards.

Special attention has been paid to the hazard associated with the handling of asbestos and a number of investigations of asbestos-handling plants has been commenced. A dust survey of the pottery industry has revealed that in general dust concentrations are not excessive.

Investigations were made of a number of "gassing" incidents involving the collapse of workmen. These include one fatality, the death of a hotel manager in a poorly ventilated cellar from the inhalation of carbon dioxide gas. Carbon dioxide gas had apparently been escaping from a faulty valve for some time prior to the accident.

There was one case of cyanide intoxication which resulted from exposure to hydrogen cyanide formed when a tank which had previously held plating solution was filled with acid. The amount of hydrogen cyanide produced was very large and death of the exposed person was probably prevented only by his immediate removal from the tank.

Another incident involved the collapse of a workman from ethylacetate fumes when he entered a solvent vat without adequate precautions. In a similar incident, another workman collapsed in a petrol tank when attempting to clear the tank of sludge. Again, tragic results were prevented only by prompt rescue of the unconscious men.

The scientific staff continued to maintain the advisory service with respect to occupational health problems on the waterfront. Some 30 inspections of ships were made.

Assessment of noise-levels in relation to noise induced deafness was undertaken in some 30 factories and appropriate recommendations made.

Members of the scientific staff attended and contributed to a number of conferences and meetings on various aspects of occupational health. In particular, the 1970 Victorian Industrial Safety Convention was attended, and contributions were made to a number of technical sessions, namely the Transport and Handling of Hazardous Materials, Noise in Industry, and in particular, a session on Industrial Ventilation was organized as a contribution from the Division.

At this latter session, great interest was shown in a smoke generator developed by the scientific staff for the demonstration of air-currents.

An Atomic Absorption Symposium was attended and was found to be a valuable aid in assessing the method for future applications in this Division. The symposium covered important theoretical and practical aspects of instrumentation and examined in detail certain applications, those in the field of clinical bio-chemistry being of particular interest to us. A Forensic Science Symposium was also attended and papers entitled "Mercurial Intoxication" (Clinical and Occupational Features) and "Cause of Death in Fires" were presented.

The procurement of a gas chromatography instrument has provided the scientific staff with a modern analytical tool which has greatly expanded the Division's capabilities in the handling of solvent and general industrial hygiene problems.

Dust.

Sixteen dust counts were carried out on samples collected with the Greenburg-Smith Impinger and the Thermal Precipitator. Free silica analyses were made on six samples.

This year saw a change-over to gravimetric dust sampling equipment and eight dust determinations were done on samples collected by this means. Asbestos fibre in air counts were performed on ten samples.

Lead.

During the year 4,300 reports were received under the Lead Workers (Medical Examinations) Regulations. 18 workers were certified as "suffering from lead poisoning" by the examining medical officer. 108 workers attended the Division's laboratories for additional tests to evaluate their lead exposure.

Tests performed were—

Stippled cell counts	..	..	..	..	..	..	2,067
Urinary coproporphryn		..	..	..	..	..	260
Urinary lead	..	..	..	..	..	..	129
Haemoglobin	..	..	..	..	..	..	60
Full blood counts	..	..	..	..	..	..	50
Blood lead	..	..	..	..	..	..	7
Lead in paint, soil	..	..	..	..	..	..	8
Lead in air	..	..	..	..	..	..	15

General Chemicals.

No reports of benzene poisoning were received.

The use of carbon tetrachloride is continuing to diminish.

A total number of some 51 atmospheric determinations for solvent vapours was undertaken. The solvents included benzene, methyl ethyl ketone, methyl isobutyl ketone, toluene, xylol, butanol, butylacetate, acetone, perchloroethylene, trichloroethylene and solvent mixture.

Seventy-five tests for atmospheric contaminants (other than solvent vapours) were undertaken. The contaminants included chlorine, chromic acid, carbon monoxide, carbon dioxide, formaldehyde, hydrogen cyanide, hydrogen sulphide, nitrogen dioxide, ozone, sulphur dioxide, toluene diisocyanate and diphenylmethane diisocyanate. Recommendations were made to 12 factories to reduce the concentration of solvent or contaminant in the atmosphere, generally by means of local exhaust ventilation.

A survey of screen printers showed that some of them need to reduce the atmospheric concentrations of solvents by means of exhaust ventilation.

Pesticides.

Organo-phosphorus compounds.

The estimation of blood cholinesterase levels in 53 people involved 68 analytical determinations. There were two cases of Phosdrin poisoning during January, amongst the strawberry growers in the Silvan area.

Chlorinated Hydrocarbons.

A "Termite Conference and Instruction Course" arranged by the C.S.I.R.O. Division of Forest Products was attended and a paper entitled "Health Hazard in Termite Control" presented.

Methyl Bromide.

A follow-up of the 1968-1969 survey into Methyl bromide fumigation in dried fruit packing sheds was undertaken. Particular attention was paid to the use of chloropicrin as a warning agent, to the method of dispensing of the fumigant and to the re-checking of halide lamps. Discussions with the Commonwealth Department of Primary Industry have elucidated their requirements with respect to fumigation immediately before shipment. Lack of understanding of these requirements was responsible for symptoms of chloropicrin exposure occurring in men unpacking stacks within 24 hours of fumigation. In collaboration with the Department of Primary Industry, revision of their "Code of Practice for the Fumigation of Dried Fruit under Gas Proof Sheets with Methyl bromide" is being carried out.

Further work was carried out on fumigation in shipping containers, involving several chemical analyses in a container of sheepskins. Similar results were obtained with this cargo as with dried fruit, indicating a fall in concentration to approximately 150 ppm by the time of shipment. Air samples were also collected from the hold of a container ship between Melbourne and Fremantle, with 23 containers under fumigation. The results showed the concentration of Methyl bromide in the hold to be well below the maximum allowable concentration. A code of practice for the "Fumigation of Containerized Cargo with Methyl bromide at Country Loading Points" is under consideration.

Arsenic.

Twelve people were tested for suspected Arsenic poisoning. This involved 14 analytical determinations, 8 on urine, 4 on hair, and 2 on nails. No cases of poisoning were detected.

Mercury.

Twenty-nine people were tested for increased mercury absorption. 16 of these showed that they had exposure to mercury but the urinary mercury values obtained were below the level at which symptoms of chronic mercury poisoning would be likely to occur.

Five factories and two laboratories were monitored for mercury vapour and one factory was tested for mercury bearing dust.

Radiation.

The numbers of licences issued to various sections of the community with respect to the possession and use of irradiating apparatus and radio-active substances under the Irradiating Apparatus and Radio-Active Substances Regulations for the year are as follows :—

Medical	..	..	..	..	..	..	..	191
Dental	..	..	..	..	..	..	..	290
Industrial	..	..	..	..	..	..	..	179
Educational and Research		..	..	..	..	..	..	77
Government Bodies	..	..	..	..	..	..	..	56
Chiropractors	..	..	..	..	..	..	..	67
Hospitals	..	..	..	..	..	..	..	203
Clinical Groups	..	..	..	..	..	..	..	43
Total								1,106

The Commonwealth X-ray and Radium Laboratories now regularly provide the Division with film badge reports from some 210 installations where people are exposed to ionizing radiation.

The film badge reports indicate that the general level of radiation dose received by these people is well below permissible levels.

The use of radio-active substances in medicine, research and industry continues to gradually increase. The demand for gamma and X-ray radiography continues to rise, particularly for the large construction works associated with the new oil and natural gas discoveries.

Proposed amendments to the Irradiating Apparatus and Radio-Active Substances Regulations 1959 have been drafted and it is expected that these amendments will be introduced into the legislation next year. These amendments are designed to specify certain requirements in more detail and should allow the Commission of Public Health to exercise more control over the radiation field in general.

ENGINEERING DIVISION.

Sewerage.

During the year sewerage works were completed or came into part operation at Alexandra, Beechworth, Birchip, Coleraine, Donald, Foster, Mansfield and Simpson, all of which have lagoons as either the sole means or the major part of treatment. Sewerage schemes were commenced for Port Fairy, Queenscliff, Sealake, Torquay and Wycheproof, and Sewerage Authorities were constituted for the townships of Kilmore, Melton, Rainbow and Robinvale.

Further proposals for sewerage schemes were made for Daylesford, Churchill and Yinnar.

Eighty-two inspections of Provincial Sewage Treatment Works were carried out and samples were collected for analysis, the authorities being advised of the results and provided with comments in regard to the effectiveness of operation of the plant. Plans examined in connection with proposed new schemes or extensions to existing treatment works numbered 15.

Officers of the Division took part in lectures concerning sewerage both in connection with refresher courses for Health Inspectors in Metropolitan and Country Centres and also in connection with a Sewage Treatment Plant Operators' Course held at Springvale.

Septic Tank Installation.

The number of plans examined in connection with municipal council proposals, public buildings, and in cases where effluents from industrial or private premises would be discharged to a stream or the sea was 216. In addition, an extension to the mass septic tank scheme for the township of Lake Bolac was examined and approved.

The new type of “Packaged” plant is becoming more popular in the case of the larger installations required by industries and institutions. These plants may incorporate a septic tank for the purpose of primary treatment followed by aeration and final settling, or the raw sewage may be treated by aeration from the beginning, using air from compressors, and followed by a final settling tank. All these smaller systems are classified as “septic tank” systems.

Fifteen proposals for septic tank systems for hospitals and industry were examined and 31 inspections were made by officers of the Division. A total of 254 inspections were made for other septic tank installations.

Offensive Trades, Garbage and Nightsoil Depots.

There were 22 plans examined and 11 inspections made in connection with applications for the establishment or extension of offensive trades most of which were abattoirs.

It is pleasing to note that the trend towards the use of sewerage treatment processes continues as is evidenced by the fact that only two applications to establish nightsoil depots were received during the year.

In regard to garbage depots 11 proposals involving 10 inspections were examined. Sanitary land fill still remains the accepted method for the disposal of garbage and throughout the State over the years many excellent recreation grounds have been established on what would otherwise be virtually useless areas of land.

Stream Pollution and Drainage.

Six proposals were examined and 32 inspections made in connection with trade waste discharge from industrial premises into streams. A number of the inspections were made to test the quality of effluent from the trade premises both for those industries which had received the approval of the Commission to discharge trade wastes to streams, and for those which did not require approval. A considerable amount of evidence was collected by officers of the Division for consideration in relation to contraventions of the stream pollution provisions of the Health Act. A successful prosecution for contravention of the Stream Pollution Regulations was made in September, 1969, against an industry for polluting a Gippsland river.

As a result of a number of drainage complaints and enquiries received by the Department 14 inspections were made and remedial action recommended.

Public Buildings.

Examination of plans and specifications of public buildings totalled 1917 as shown in the table below.

[illegible]

Day inspections of public buildings numbered 5,648 and 238 inspections were made during public occupation at night. Thirty-two new Certificates of Safety were issued for amusement park structures and 218 certificates were renewed and 11 certificates were transferred.

There were 16 tests made in connection with mechanical ventilation used in public buildings and in all cases the results were found to conform with the requirements of the Public Building Regulations.

Swimming Pools.

Fifty-five inspections were made of swimming pools, testing of water being done on most of these occasions. Considerable improvements have been achieved in recent years in the quality of pool water and pool managers have been advised in regard to the best manner of operation in order to achieve a water quality which would conform with the new Swimming Pools (Water Purification) Regulations. Many new pools are being provided by Councils throughout the State.

Preparations were made for another instructional course for swimming pool operators to be held in July 1970 at Springvale, and sponsored again by the Australian Water and Waste Water Association.

Water Supply.

Water samples taken for the purposes of bacteriological analyses numbered 126 and 81 inspections were made in connection with water supply chlorination plants and sources of water supply. The above water samples included a regular monthly testing of the Metropolitan water at various points of the reticulation system, and consultations in this regard have been held with Officers of the Melbourne and Metropolitan Board of Works.

POLLUTION.

Pollution of the Environment has been much emphasized in the past year. People have come to realize that the "quality of life" is not merely a political catch phrase: it is a concept which can make life good or bad. The World Health Organization definition of health is "a state of complete physical and mental well-being and not merely an absence of disease" and this is taken by the Commission to mean that man must be satisfied with his environment.

The four main aspects of pollution of the environment which affect the Commission are—

- Air pollution,
- Pollution of water,
- Pollution of land, and
- Noise to a limited extent.

Air pollution is dealt with in a separate report, but it is worth noting that despite increasing industrialisation the amount of pollution is stationary or actually falling.

Departmental Officers gave evidence to the Senate Select Committee on Water Pollution and also sat on the Westernport Water Pollution and the Water Quality Technical Committees, both set up by the Permanent Heads' Steering Committee on Pollution. A proposal for an environmental study of Western Port Bay was referred to the Commission for comment: the Commission considered that priority should be given to a study into the feasibility of collecting all the effluents and discharging them outside the Bay through trunk sewers.

Pollution of land by waste disposal seems an inescapable accompaniment of civilisation. Care is taken when approving sites for refuse depots that the amount of pollution is minimal. Much research is being conducted abroad upon alternative means of waste disposal but as mentioned elsewhere in this Report sanitary landfill remains the method of choice.

The public's awareness and objection to noise is reflected in the increasing number of enquiries and complaints related to community-noise problems. At present, legislation is confined to the Local Government Act, which gives municipal councils the power to make by-laws for the purpose of controlling the emission of objectionable noises at unreasonable times. The assessment of the objectionable nature of a noise on purely subjective grounds often leads to conflicting opinions, and consequently a more objective approach involving noise level measurement is desirable. To this end, the Standards Association Committee on Community Noise is formulating an Australian Standard Code of Recommended Practice for Noise Assessment with respect to Annoyance (Residential Areas) which should be available in the near future for guidance of local councils.

AIR POLLUTION CONTROL.

Monitoring of dustfall by means of deposit gauges, and smoke density and sulphur dioxide concentration in the ambient atmosphere was continued with only minor changes in location and number. A detailed report of air pollution measurements by the Clean Air Section accompanied the submission to the Commission at its meeting on 14th July, 1970.

Complaint investigations and site inspections prior to installation of new plant numbered 317. There were 65 inspections of completed plant and visits relating to field work in connexion with air pollution measurements.

Examination of plans and specifications of new plant and equipment pursuant to the Clean Air Regulations 1965 numbered 112, details of which are given in the following table:—

Spraybooths (17)	..	..	Paint	..	..	..	16
			Enamel Frit	..	..	..	1
Incinerators (9)	..	..	Municipal	..	..	..	Nil
			General	..	..	..	5
			Woodwaste	..	..	..	4
Odour Control (4)	..	..	Wet Scrub	..	..	..	1
			Afterburner	..	..	..	3
Boiler Plant, Water & Oil Heaters (53)			Heavy Fuel Oil (Middle East)	..	..	..	31
			High Pour Point Oil (Bass Strait)	..	..	..	3
			Industrial Diesel Fuel	..	..	..	19
			Automotive Distillate	..	..	..	Nil
			Natural Gas	..	..	..	Nil
Metallurgical Works (4)	..	..	Aluminium Holding Furnace	..	..	..	1
			Aluminium Melting Furnace	..	..	..	1
			Zinc Remelt Furnace	..	..	..	1
			Cast Iron Melting Cupola	..	..	..	1
Petroleum Plants (4)	..	..	Flare Stacks	..	..	..	2
			Detergent Alkylate Plant	..	..	..	1
			Petrochemical Plant Extension	..	..	..	1
Chemical Plants (5)	..	..	Char Plant	..	..	..	1
			Mist Eliminator	..	..	..	2
			Formaldehyde Plant Extension	..	..	..	1
			Paint Resin Plant	..	..	..	1
Ceramic Works (3)	..	..	Down Draft Kiln	..	..	..	1
			Natural Gas Fired Tunnel Kilns	..	..	..	2
Dust & Fume Control (6)	..	..	Stone Crushing Plant	..	..	..	1
			Power Station Electrostatic Precipitator	..	..	..	1
			Asbestos Baghouse	..	..	..	1
			Fume Extraction Unit	..	..	..	1
			Dust Extraction Unit	..	..	..	2
Miscellaneous	..	..	Tobacco Fumigation Chamber Exhaust	..	..	..	1
			Stoving Ovens	..	..	..	4
			Solvent Exhaust Vent	..	..	..	1
			Laundrette Drying Tumbler Exhaust	..	..	..	1

This bring the total number of plants approved since the introduction of the Clean Air Regulations 1961 to 864.

Acidic Smut Emissions.

The programme for the elimination of acidic smut emissions from Hoffman kilns impulse fired with heavy fuel oil from middle eastern origin is nearing fruition. Only five kilns of this type were causing problems as at the 30th June 1970. Since that date one of these units has been fully converted to natural gas firing. Some minor problems still exist in this plant in that the materials of construction available for the burners are not completely satisfactory. Some carbonisation at the burner tips is also being experienced. It is still too early to be certain that the problem has been completely eliminated on this kiln. However it is confidently anticipated that this is the case. A lengthy period (up to one year) of trouble free operation without any soot fallout will be necessary before it can be stated that this method of firing is a complete solution. One of the remaining four kilns will also be changed to natural gas firing within the next three months. Two of the remaining kilns will be converted to utilise indigenous fuel oil with a low sulphur level. Prior to the commencement of refining of this oil on the 27th March 1970, it was anticipated that the low sulphur fuel oil would be available during April 1970.

The high pour point temperature of the oil (120°F. approximately) has caused a number of problems at receiving installations, refineries etc. and would cause problems if supplied into existing fuel oil systems, where adequate heating was not provided. Rapid progress is being made in overcoming the last mentioned problem. The first deliveries of low sulphur indigenous oil to industry will probably be made on or about the 31st July 1970. The remaining problem Hoffman kiln will be converted to either natural gas, or low sulphur fuel, and the Commission is to be advised in the very near future, of the Company's intention in this matter.

Steel Making.

A considerable amount of work has been carried out on a satisfactory method of controlling the fume which results when oxygen is used to decarburise steel in the manufacturing process. When pure oxygen is used for this process the fume which is emitted is bright orange in colour, and the particles are exceedingly fine. This limits the type of equipment which can be employed to achieve a satisfactory clean-up of the fume. Of the available methods, either capital costs or operating costs are exceedingly high. When oxy-fuel lancing is used to decarburise the steel melt, the total weight of pollutants emitted remains similar to when using pure oxygen, but the particles are much larger and can therefore be theoretically collected in a much simpler type of control unit. Pilot plant studies using a collector known as a 'Microdyne' and later a "Turbulaire" unit have been undertaken. The data collected during these trials is currently being examined and compared with the more expensive systems referred to above. The system to be adopted must necessarily be capable of limiting the emission of air impurities to the limits set down in the Regulations, and if complaints are to be avoided the exhaust gas stream from the steel plant should be invisible.

GENERAL ITEMS.

Prison Medical Service.

Provision of medical services to prisoners has in the past been the responsibility of the Mental Health Authority but due to difficulties in providing an adequate service the Authority has requested the General Health Branch to take over the responsibility for the provision of medical services at Pentridge Gaol with the Mental Health Authority continuing to provide psychiatric services.

During the year the Medical Officer at Pentridge resigned and the service was carried out by District Health Officers on a roster basis. Later, a temporary medical officer was appointed and it is hoped to continue in this way until the intentions of the Government are made known. An X-ray machine was secured in June and is at present being installed. This will help to improve the service and paradoxically, should save public money.

Civil Defence.

Again no disasters of public health interest were reported during the year. On Easter Thursday a truck loaded with seven tons of superphosphate and potash overturned into the Tarago River below the State Rivers and Water Supply Commission dam. The matter was very competently dealt with at local level.

Officers of the Department attended courses at the Civil Defence School at Mount Macedon and in May the Department's displan liaison officer, Dr. W. N. Sloan, represented the Chief Health Officer at a meeting of the National Medical Planning Committee at the School. During the year, draft Standing Orders for the disposition and control of the Department during conditions of National disaster (e.g. Nuclear War) were drawn up.

Cancer Education.

The Department has continued its policy of making available to the Anti-Cancer Council of Victoria, medical officers to assist in its public education programme.

During the calendar year 1969, the Council undertook a total of 160 talks, of which Departmental Officers carried out 39 on the following topics:—

Breast and Cervical Cancer (Women)	..	..	..	..	15
Cancer—General	..	..	..	..	7
Lung Cancer and Cigarette Smoking (Schools)	..	..	..	..	12
Cancer—General. Youth Clubs	..	..	..	..	5
					<hr/>
Total	..	..	..	..	39

In 1970, a film on cigarette smoking which was produced jointly by the Department and the Anti-Cancer Council was released. This film is aimed at discouraging adolescents from taking up cigarette smoking.

A meeting was held between representatives of this Department, the Anti-Cancer Council and the Education Department, at which the latter Department was advised of the availability of this film, of printed resource material and of speakers on request either to this Department or to the Anti-Cancer Council.

As a result of this it is anticipated that District Health Officers will be required to give more talks to school groups in their Districts than hitherto.

Rodent Control.

Rodent control over the past 12 months again consisted of assistance and advice to the Melbourne Harbour Trust personnel engaged in rodent control throughout the Harbour Trust and waterfront areas.

Rat infestation on the waterfront area has been kept at a low level due to constant surveillance, and continual baiting of areas susceptible to rat infestation.

No unusual infestations were reported during the year. Advice was given to the Harbour Trust personnel to obtain a variety of baits and to rotate their use according to environment; three types of bait are now in use. The sheds at each wharf are inspected periodically by the Departmental Pest Control Officer and details are recorded. Any evidence of rat infestation is immediately referred to the Harbour Trust personnel for remedial action.

Liaison with the Commonwealth Quarantine Department continues on a satisfactory level and all notifications of rat infestation are investigated. One such notification entailed a survey on the main commercial portion of the Geelong Harbour Trust area which covers an area of approximately 12 miles in length; a detailed report was then submitted to the District Health Officer for this area.

Rat infestation in the State.

Numerous inspections of open drains, creeks and public institutions, &c., were carried out in relation to rodent control, and advice in regard to eradication was given.

Liaison was maintained with municipal Health Inspectors in relation to pest control, i.e., flies, cockroaches, &c., and advice was given as to their control.

Fly Control.

A survey of the City and Shire of Swan Hill was carried out in the company of the Health Inspectors, to ascertain the severity of infestations of flies and mosquitoes, and to submit advice for a possible campaign.

Mice Plague—Mallee.

Inspection of various areas throughout the Victorian Mallee was carried out to assess the hazards involved in the handling of poisons being used, and the possibility of stored grain becoming contaminated by these poisons and faecal matter, &c. These inspections were undertaken in company with the District Health Inspector and various inspectors from the Vermin and Noxious Weeds Destruction Board.

Advice by Publications.

In conjunction with the Publications Officer a number of pamphlets on fly and mosquito control were revised; a short summary was submitted on the principles of the modern day aerosols for possible future publication.

Liquor Inspection.

Premises inspected:—

Hotels	..	..	..	..	..	304
Licensed Grocers	..	..	..	..	..	117
Sporting Arenas (Visits)	..	..	..	..	..	31
Aerodromes	..	..	..	..	..	1
Total						453

Of the 304 hotels visited, 13 did not have a denaturing substance in the driptrays, as required by the Cleanliness (Foods, Drugs and Substances) Regulations. A warning was given to the licensee in each case, and follow up inspections were made.

One hotel and four licensed grocers visited were selling wine with labels that did not comply with the labelling requirements of the Food and Drugs Standards Regulations. Action was taken to ensure correct labelling.

One licensed grocer's premises did not comply with the Cleanliness (Foods, Drugs and Substances) Regulations and requirements were issued to bring the premises to an acceptable standard.

Cleanliness in liquor booths at sports arenas was found to be of the required standard.

Opened bottles of spirits tested at above mentioned premises were as follows :—

Scotch Whisky	1,231
Australian Whisky	876
Imported Brandy	70
Australian Brandy	734
Imported Gin	262
Australian Gin	385
Imported Rum	230
Australian Rum	120
Schnapps	30
Total	3,938

Of this total of 3,938 bottles the following were found to be adulterated :—

Scotch Whisky	9
Australian Whisky	4
Australian Brandy	3
Imported Brandy.. .. .	1
Imported Rum	3
Australian Rum	5
Imported Gin	6

Fifteen licensed premises were visited for the purpose of sampling draught beer and all samples gave satisfactory results.

A prosecution taken under the Goods Act for adulteration of whisky was successful as was one taken under the Cleanliness (Foods, Drugs and Substances) Regulations where drip trays in a hotel were not provided with denaturing substances.

Two prosecutions in respect of adulterated brandy are pending.

Free Travel for Pensioners and Persons of Similar Limited Means.

Again there was a large increase in the number of applications compared with that of the previous year, the total was 24,888, an increase of 3,564 over the previous year.

Of these 24,789 were issued with free rail vouchers and/or tram tickets to attend a public hospital for treatment. The remaining 99 were rejected as the applicants either failed to qualify as “persons of similar limited means to a pensioner”, were not attending approved institutions, or proposed to use other than public transport.

The expenditure on Free Travel for the year was \$97,528, an increase of more than \$9,000 compared with the previous year. The increase in expenditure can be attributed to two factors, the increase in the number of applications and a rise in train fares.

LEGISLATION.

During the year the *Health (Amendment) Act* 1969 No. 7909 was given Royal assent. This Act includes:—

- (a) Power to pay by instalments charges made by councils for the collection of refuse and rubbish.
- (b) Provision for certain sheet metal workers and apprentices to undertake plumbing without being registered.
- (c) An extension to the regulation making powers in respect of dangerous substances or irradiating apparatus to enable the Commission at any time to impose conditions under which a licence may be issued, renewed, varied or remain in force.
- (d) A new Division to enable the registration of pest control operators and the licensing of authorized users of pesticides.
- (e) Provision for an inspector as well as a medical officer of health to report to his council as to whether a house is suitable from the point of view of health for removal to another municipality.
- (f) A requirement that the proprietor of a premises or a vehicle used for the sale of any food, drug, article or substance must have his name painted or affixed thereon.

- (g) Power to make regulations prescribing certain wording to be included in labels attached to packages containing tobacco.
- (h) The penalties in relation to the unlawful possession or manufacture of meat brands.

Regulations.

As well as the regulations referred to elsewhere in this report, the following were approved:—

Meat Transport Vehicles (Amendment) Regulations 1969.

These regulations include a revised schedule of structural provisions for meat transport vehicles to permit the use of plastics and fibreglass.

Poisonous Substances Regulations 1969.

These regulations repeal the 1955 regulations and revise the specified amounts of lead and other substances permitted in toys, paint, papers and food wrappers.

Labelling of Hazardous Household Substances (Amendment) Regulations 1969.

These regulations extend the provisions of the Principal Regulations to packages in fluid form of not more than eighty fluid ounces.

Diseases Notification Regulations 1969.

These regulations repeal the 1959 regulations and in addition to eclampsia, prescribe acute nephritis, acute rheumatism (including chorea), leukaemia and scurvy as being diseases or abnormal bodily conditions the occurrence of which must be notified to the Commission.

Child Minding Centres (Health Act) Amendment Regulations 1969.

These regulations require the proprietor of a child minding centre to notify the Commission of any complaint in relation to the conduct of any person who is concerned with the care, protection and safety of any child at a child minding centre or going to or from a centre.

Cleanliness (Foods, Drugs and Substances) Amendment Regulations 1969.

These regulations remove new food jars or bottles capped or sealed at the time of manufacture from the requirement in relation to rinsing with clean water or treatment with a jet of filtered air prior to filling with food. In addition, the amendments require bottles or containers of milk to be protected from the direct rays of the sun at all times prior to sale.

Household Insecticides (Amendment) Regulations 1969.

These regulations extend the provisions of the Principal Regulations to include animal shampoos and provide for the addition of further chemicals which may be contained in household insecticides.

Cinematograph Operators (Amendment) Regulations 1969.

These regulations provide that persons who have attained the age of 20 years are eligible to sit for examination for a licence as a cinematograph operator and to be licensed as such. Previously they were required to be adults.

Pre-School Centres Building (Amendment) Regulations 1969.

These regulations provide for a reduction in the minimum ceiling heights for pre-school centres.

Swimming Pools (Water Purification) Amendment Regulations 1969.

These regulations extend the date of operation of the Principal Regulations in the case of certain swimming pools to 1st April, 1971.

Cleanliness (Foods, Drugs and Substances) Amendment Regulations 1970.

These regulations which came into operation on 1st July, 1970, require that all drinking vessels shall be cleansed after each serve in licensed victuallers' premises, milk bars, &c.

Animal Food Regulations 1970.

These regulations which come into operation on 1st October, 1970, provide for the control of the manufacture, preparation, packaging and labelling of food for dogs and cats. In addition, the regulations contain requirements for the staining of certain types of animal food.

Offensive Trades (Amendment) Regulations 1970.

These regulations amend the Principal Regulations in relation to the staining of materials which are removed from knackeries.

Proclamations and Orders in Council.

The whole of the Shire of Alberton was constituted as a meat area and the following meat areas were extended:—

Ararat to include the whole of the Shire of Ararat.

Port Fairy to include the whole of the Shire of Belfast.

Corangamite to include the remaining portion of the Shire of Hampden.

The offensive trades provisions of the *Health Act* 1958 (so far as those provisions are applicable to piggeries) were extended to portions of the Shire of Rochester and to the townships of Yackandandah, Kiewa and Tangambalanga in the Shire of Yackandandah.

An Order in Council was issued permitting the establishment by the Borough of Port Fairy of a garbage depot in the Shire of Belfast.

OBITUARY.

The Commission records regret at the death on 22nd June, 1970, of Dr. Henry McLorinan, C.B.E., who had served with distinction as a member since 1954.

Dr. McLorinan had been associated with the Fairfield Infectious Diseases Hospital since 1918, and was appointed Medical Superintendent in 1946.

He was recognised as a world authority on the treatment of infectious diseases and his name and his work will be perpetuated in the McLorinan Block at Fairfield Hospital.

RETIREMENT OF THE CHIEF ENGINEER.

Mr. J. F. McDonnell retired in June after 41 years service with the Department of Health, the last 20 years as Chief Engineer.

Mr. McDonnell was a member of the Building Regulations Committee and is highly regarded in engineering and municipal spheres.

The Commission records its appreciation of the expert advice on sanitary engineering problems provided by Mr. McDonnell over the years.

Respectfully submitted,

R. J. FARNBACH	}	Members of the Commission.
T. R. FLOOD		
A. S. THOMSON		
J. E. DALEY		
S. W. WILLIAMS		
A. C. PITTARD		

A. T. GARDNER, Secretary,

Melbourne, 22nd September, 1970.

